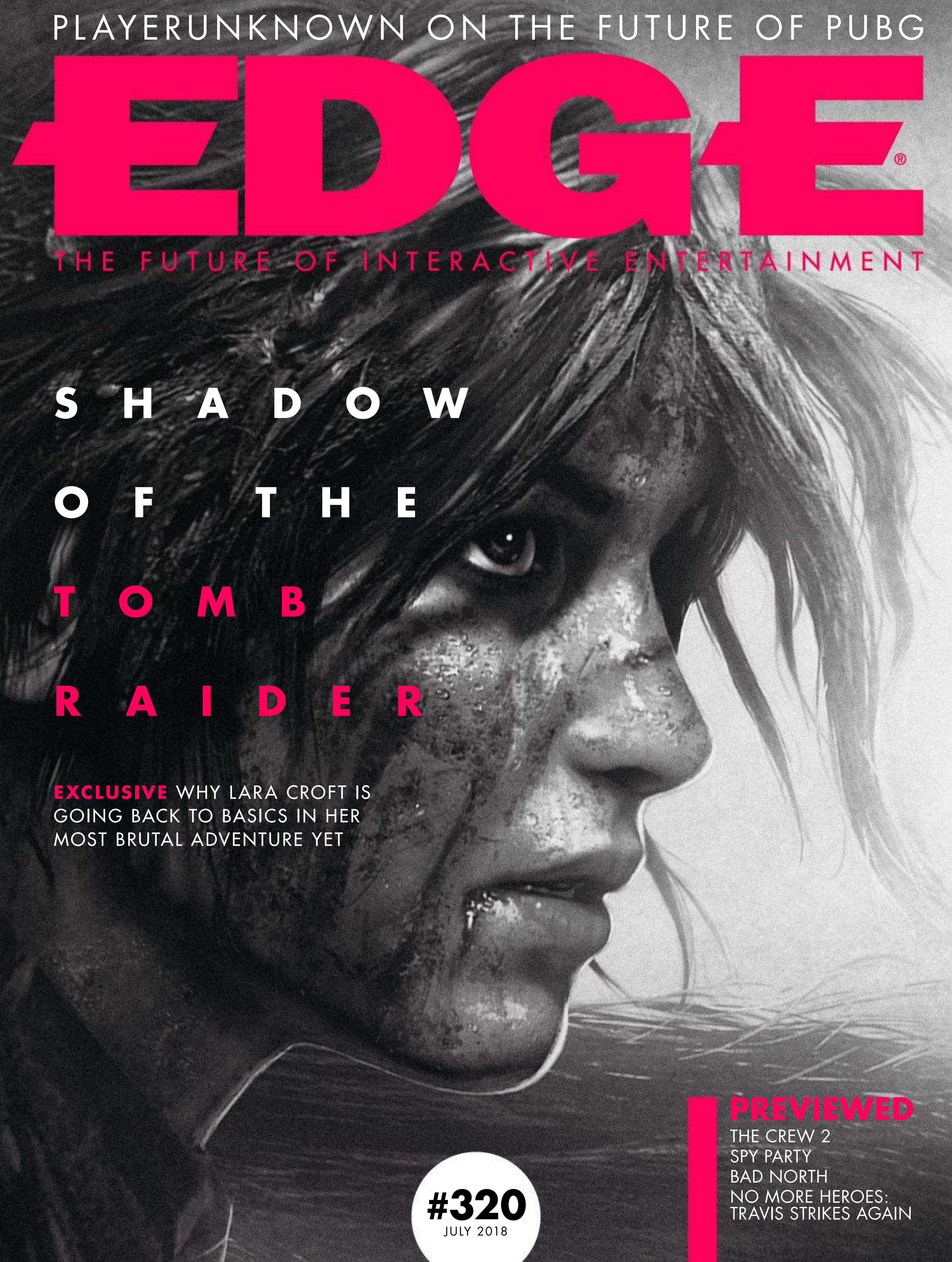
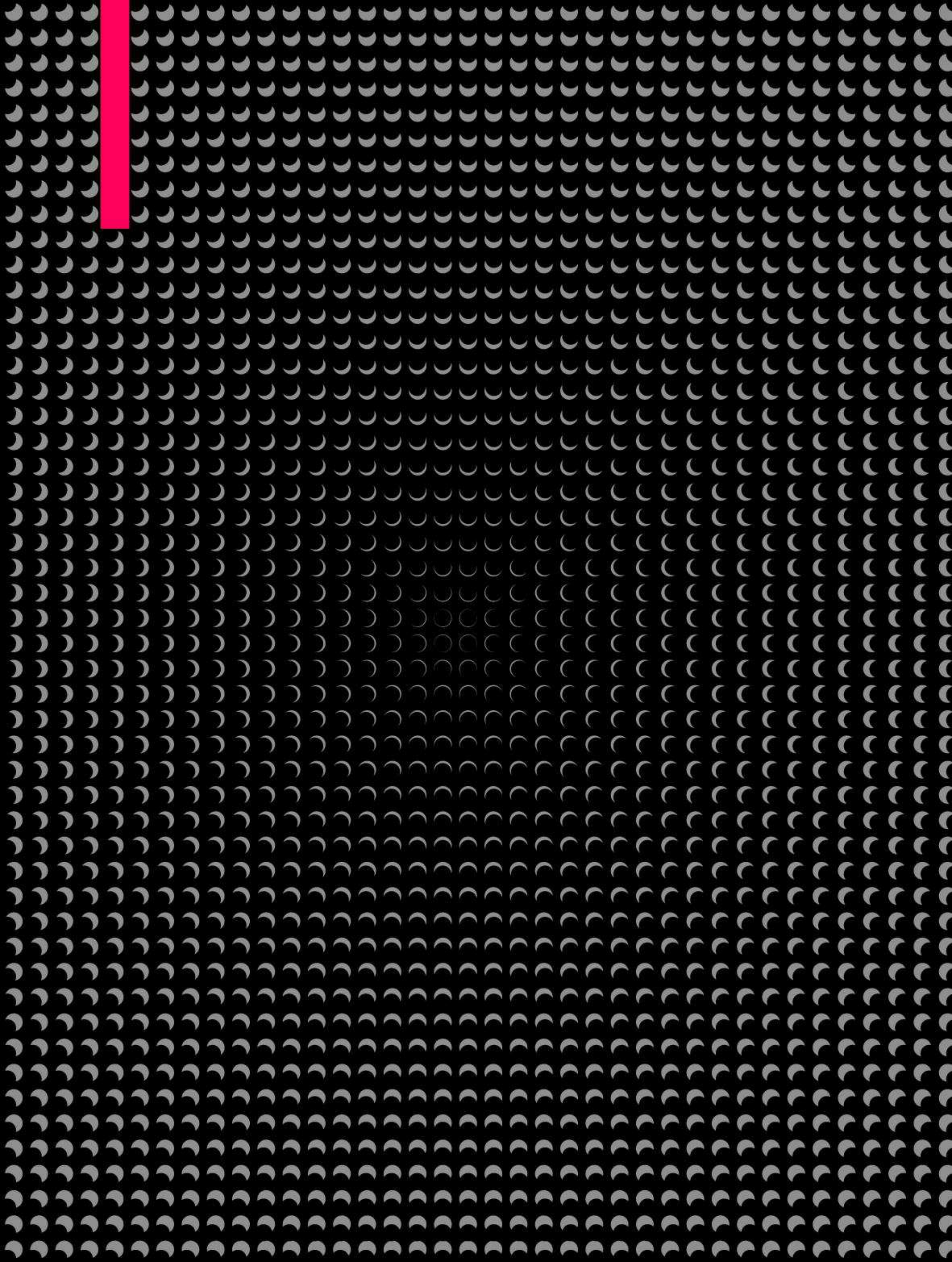
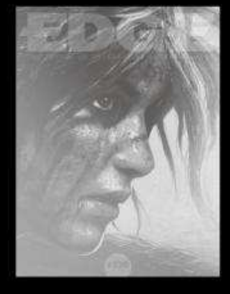


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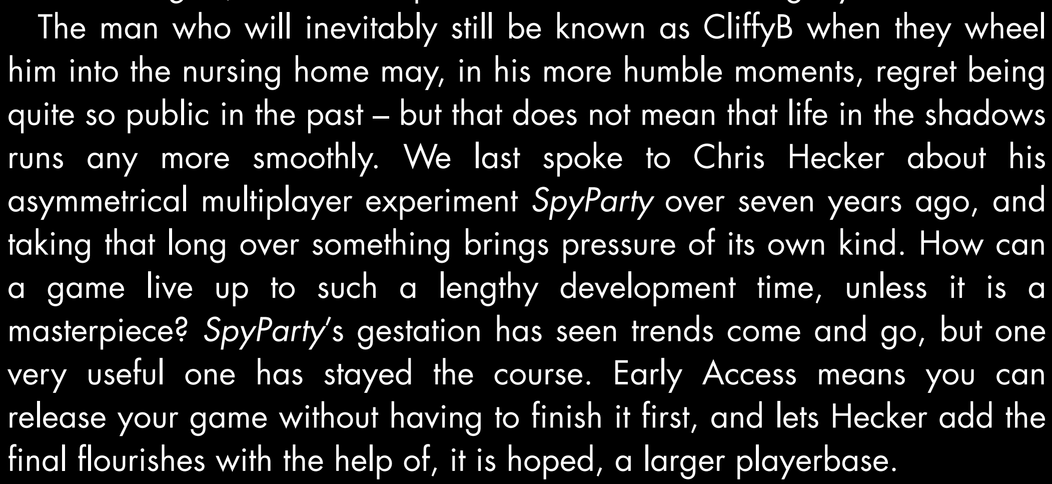


Been a long time since I looked you in the eye

In the videogame industry, longevity is as often a blessing as a curse. You don't get to stick around unless you achieve success, but as the acclaim and awards roll in, the pressure ratchets up. When Cliff Bleszinski quit Epic Games after 20 years to set up on his own, he was not the head of a promising young start-up; he was the cocky *Gears Of War* guy. He still is, but now also carries the burden of the failure of his studio's debut game, *Lawbreakers*. This issue we run the rule over Boss Key's new game, *Radical Heights*, the next chapter in Bleszinski's future legacy.



Exclusive subscriber edition



The man who will inevitably still be known as CliffyB when they wheel him into the nursing home may, in his more humble moments, regret being quite so public in the past – but that does not mean that life in the shadows runs any more smoothly. We last spoke to Chris Hecker about his asymmetrical multiplayer experiment *SpyParty* over seven years ago, and taking that long over something brings pressure of its own kind. How can a game live up to such a lengthy development time, unless it is a masterpiece? *SpyParty*'s gestation has seen trends come and go, but one very useful one has stayed the course. Early Access means you can release your game without having to finish it first, and lets Hecker add the final flourishes with the help of, it is hoped, a larger playerbase.

Still, seven years is nothing to Lara Croft, whose 2013 reboot graced the **Edge** cover a few months after our last look at *SpyParty*. Like Bleszinski, the star of *Tomb Raider* knows a thing or two about reinvention; introduced as a sex symbol and later retconned as the polygonal face of girl power, she's been put right through the mill in recent outings, nearly raped once and almost murdered countless times, every player mistake met with a grisly death scene. Despite her longevity, she's also been growing throughout the reboot era. In *Shadow Of The Tomb Raider*, her transition to someone worthy of her title is complete, and Square Enix is taking that as licence to issue her with her toughest challenge to date.



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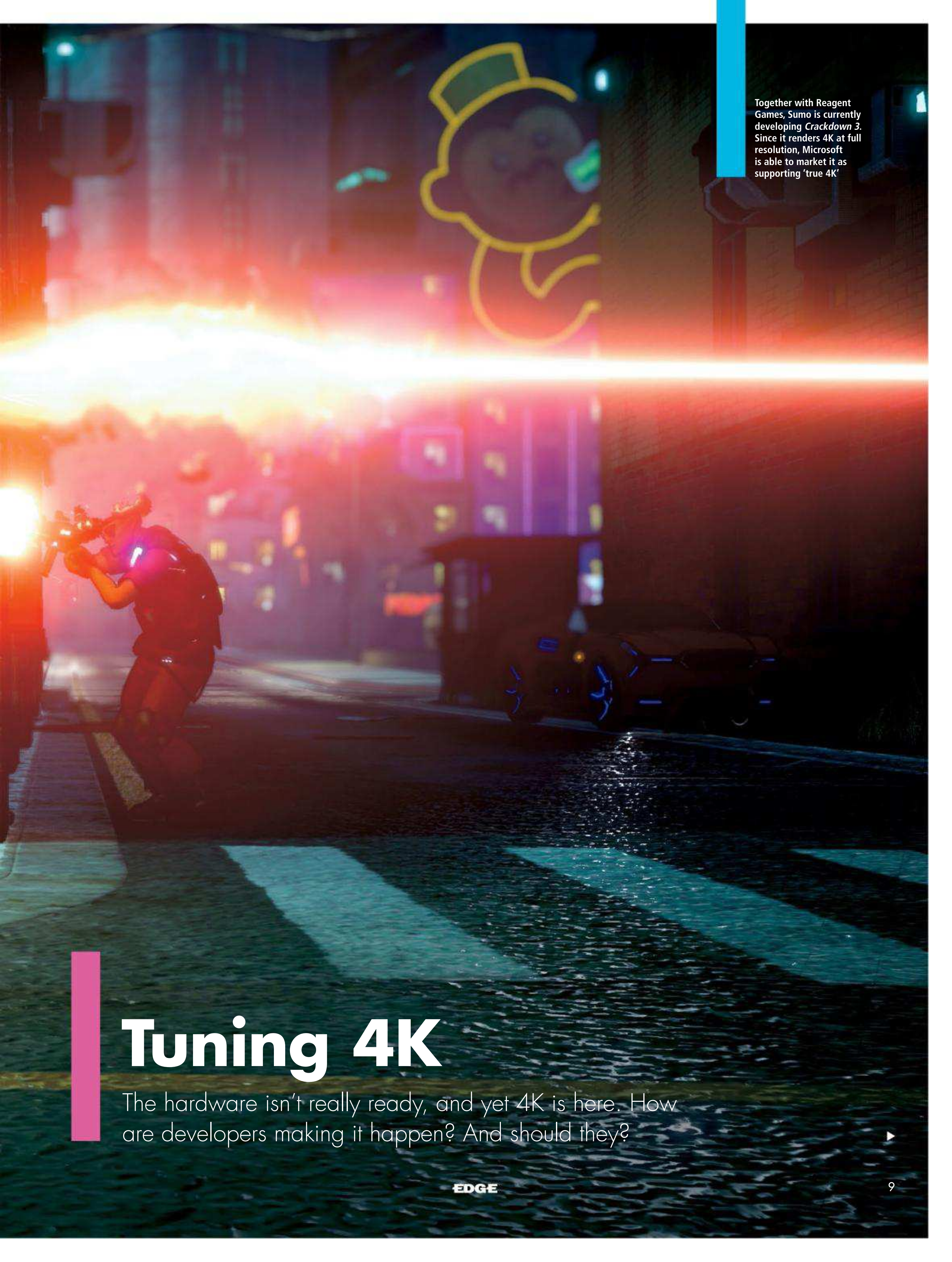
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Together with Reagent Games, Sumo is currently developing *Crackdown 3*. Since it renders 4K at full resolution, Microsoft is able to market it as supporting 'true 4K'

Tuning 4K

The hardware isn't really ready, and yet 4K is here. How are developers making it happen? And should they?



Games are currently facing one of the sternest technical challenges they've ever had to grapple with. As TV and monitor makers have brought down the price of of 4K displays, games have rushed to meet them pixel for pixel. Both Sony and Microsoft have launched upgraded consoles, Xbox One X and PS4 Pro, which are specifically marketed to cater to the demands that 4K imposes, but the maths is tricky. 4K is the biggest leap in pixel density that game hardware has ever had to accomplish, because with the way modern graphics processes work, pixels really matter. "The majority of work done in a frame is roughly proportional to the number of shaded pixels," says graphics engineer **Timothy Lottes**, a member of GPU maker AMD's Game Engineering team.

"To oversimplify it," says **Oli Wright**, lead graphics team programmer on Codemasters' forthcoming arcade racer, *Onrush*, "4K has four times the number of pixels compared to 1080p, but a PS4 Pro does not have four times the power of a PS4". In other words, consoles have not kept in step with the additional requirements of 4K – not even Xbox One X. Lottes estimates that to achieve roughly the same kind of visual quality as a PS4 game at a rate of 30 frames per second, 4K requires around 7.4 Teraflops (floating point calculations) per second. PS4 Pro checks in at 4.2 Tflops per second, and Xbox One X at 6 Tflops per second. As Lottes mentions, his methodology is a great oversimplification of a complex situation which doesn't take into account such factors as the memory bandwidth of each machine, but it does give an idea of how prepared the current generation is for 4K.

PIXEL COUNT

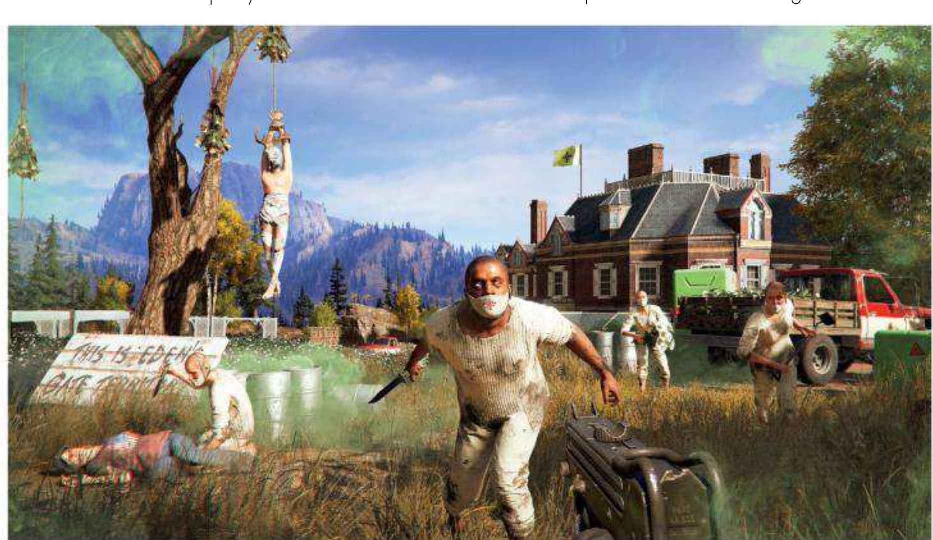
To go over the numbers, 4K's native resolution of 3840x 2160 pixels gives the screen a total of 8,294,400 pixels. This is four times the number of pixels that a Full HD, 1920×1080 pixel screen has. By comparison, the difference in pixels from the 1280×720 screen of the PS3/Xbox 360 era to 1080p was only a 2.25x leap, and that between the 640×480 screen of the PlayStation 2/Xbox/ GameCube era to 720p was three times. In what's technically just a jump of two console generations, gaming's pixel count has risen by 27 times, from 307,200 to 8,294,400. But then again, perhaps it's unfair to truly consider PS4 Pro and Xbox One X members of the same generation as their forebears.

Developers must, therefore, use a number of tricks to achieve 4K output while also reaching the same level of visual detail that their games can achieve in 1080p. *Onrush*, for example, only renders half of 4K's pixels, thereby only doubling the additional work from outputting at 1080p rather than quadrupling it. "We then use a temporal reconstruction technique to provide a unified antialiasing and upscaling solution for 4K that does a really good job of creating all the extra pixels," Wright says. Temporal reconstruction looks back at previous frames to make guesses about how to fill in the new one; another similar solution is checkerboard rendering, which renders alternating pixels to achieve much the same effect but with different pros and cons. "We've not had to deal with a four-times jump in pixel count before," Wright continues. "It would be a different proposition if it weren't for techniques like checkerboard rendering and temporal reconstruction. Those techniques allow us to pretend we're still dealing with a two-times jump."

For Sumo, thinking about 4K early is a good way of managing its demands

Not all developers are having to use these tricks. Sumo Digital, for example, which is currently working on the 4K-supporting *Crackdown 3*, which will support 4K, has looked into checkerboard rendering but so far hasn't needed to implement it, enabling Microsoft to market *Crackdown 3* as 'true 4K'. "So far, the usual graphics optimisations have been sufficient," says studio technical director **Ash Bennett**. "We'll always support 4K mode, if we're intending on targeting it, from the earliest point in the production cycle. This makes things easier from a cost and workflow perspective as opposed to trying to retrofit support at the end." For Sumo, thinking about 4K early is a good way of managing its demands.

Over the past few months accusations have circled that suggest developers are overly focusing system resources on graphics and away from other aspects of their games, such as physics, AI and other elements of general world simulation. One popular video pointed out differences between *Far Cry 2* and *Far Cry 5*, such as the dynamically growing trees and greater conflagrations in the 2008 game, which was widely interpreted as suggesting that *Far Cry 5*'s focus on visual fidelity had limited, or even made impossible, these features. Certainly, Lottes believes that the sheer jump between 1080p and 4K must be leading to some kinds of tradeoff in ▶



Far Cry 5 **has found itself in the crosshairs of some internet critics, who have suggested that its technology is so focused on visual quality that it has jettisoned the rich world simulation systems that went into** ***Far Cry 2*****'s dynamically growing and destructible trees, and more**



Onrush is something of a spiritual successor to Evolution Studios' *Motorstorm* series, featuring motorbikes, buggies and cars, wild terrain and stunt systems and takedowns

DEFINITION JAM
One of the biggest challenges that Codemasters has encountered in supporting 4K hasn't been about processing power, but making art assets that look as good on less powerful hardware as they do in 4K. "For Xbox One X we're using 4K by 4K textures," says *Onrush* art director Alex Perkins. "It meant we had to work out a priority system for maintaining the detail on smaller memory formats, so that the lowest resolution versions of the textures look comparable without eliminating too much detail, to avoid the need for separate assets per platform." 4K presents its own issues, but as a multiplatform developer supporting PS4 and Xbox One, as well as PS4 Pro and Xbox One X, not to mention PC, its high resolutions only add to the workload.

visual quality. But Bennett is firm about its real effects on the player experience. "At Sumo we have not made any sacrifices to the gameplay to support 4K rendering," he says. "It is the CPU that tends to drive the game simulation, and supporting 4K mode does not take any more of this resource than it did previously."

For **Alex Perkins**, art director on *Onrush*, 4K is just another factor in the list of cost and benefits to the player that he typically thinks about. "If we wrote an incredible grass rendering technique, but it used 50 per cent of the available resources, then I would not consider that to be good value. Unless, that is, we were creating *Grass Simulator 2018*." For him, Onrush's temporal reconstruction technique costs 10 per cent of its overall frame budget and makes a high-definition and antialiased image that benefits players. "It hasn't affected other aspects of the game because I can't imagine spending that 10 per cent on anything that would give better value to the player."

It won't come as a surprise that *Crackdown 3*'s 4K mode will run at 30 frames per second, even on the Xbox One X. Well, we say 'even'. Lottes' simplified rule-of-thumb performance bar for outputting 60 frames a second at 4K stands at 14.7 Tflops per second, which is over twice what Xbox One X is capable of. Indeed, it's comfortably over what the current PC GPU leaders are capable of, too. Nvidia's Geforce 1080ti runs at 11.5 Tflops per second and AMD's Vega 64 runs at 13.7 Tflops per second.

These distinctions raise an important question for whether 4K should have the prominence it has as a new step in games' ongoing technical development. Listen to Microsoft or Sony, Nvidia or AMD and you'd be forgiven for assuming that 4K is the only way games should go. From blast processing on down, the history of videogames is littered with promises about the transformative powers of technology. For a medium that's defined by the silicon which brings it to life, it's inevitable that games should always be presented as being on the cusp of sublimity, just a generation away from what we all dream they can be. They can always run that little bit faster, look that little bit sharper, be that bit more richly simulated. The history of games is a history of constant obsolescence, and that's okay. Games are generally better for better technology. But it certainly can make it hard to tell what a genuine technological advance is, one which will come to help define what games will be in the future, or when it's just a matter of taste – or even just something that's being foisted on games. In other words, are more pixels really better?

For Lottes, a high framerate is more important than resolution because it favours fluid motion and faster input response times, and he's comfortable with the cost of lower resolution. In terms of pure numbers, though, he points out that targeting native 4K at 30 frames per second is equal in the rate of rendered pixels to targeting native 1080p at 120 frames per second. He acknowledges that this calculation is entirely theoretical, and doesn't take into account situations in which a game's speed might be limited by its CPU once it's not bound by its GPU any more, but the prospect of being able to switch preferences between such starkly different standards for resolution versus framerate is tantaslising. "This is why any news on console support for 120Hz is exciting to me," Lottes says.

As games have proven time and time again throughout their history, marketing leads everything

But he goes further: "I think it would be an interesting world if we stuck at 720p and then just kept on scaling performance. Then developers would have more opportunity to use the GPU for more than just filling more pixels." On one hand, that excess GPU power could be put into perfecting every pixel to better close the distance to CG movie visuals, employing high-quality antialiasing and lighting effects such as the realtime ray-tracing showcased by Microsoft and Unreal at GDC this year. Or what about forgetting all that and putting it into world simulation to vastly expand the number of AI-controlled actors, physics and other complementary systems that go into producing dynamic and interactive places in which to play?

And that's just in the realms of current-day system resources and display technology. What about more speculative concepts, such as dynamically changing resolution depending on where a player is looking, raising it where the eye is directly facing to feed the small central area that the eye resolves the finest detail with lots of detail while reducing it in the periphery, which is far better at perceiving motion? Is it really worthwhile to throw equal resources to every part of the screen when players' attention is so focused on the middle? In many ways, visual technology for games today goes for crudely brute-force approach.

But as games have proven time and time again throughout their history, marketing leads everything. Improved visuals will always sell a game better than a difficult-to-visualise, more richly simulated world, or a framerate that YouTube can't support. And that effect is doubled when 4K TVs are increasingly ubiquitous. If you've just bought one, you'll want to take the best advantage of it. None of this is to deny that 4K can be stunning to behold and play. "[4K is] important to us because it makes a difference," says Codemasters' Wright. "You could certainly argue that when watching a movie at a typical viewing distance, 4K offers very little over 2K. I can't speak for everybody, but I know every gamer in my house sits a lot closer to the TV when gaming. 4K is definitely better for games."

4K is here to stay and developers have the tools to reach its demands, even if the hardware is technically lacking. But to think it's the only advance gaming can make would be to forget that the power of today's consoles and PCs can do so much more than simply throw millions of pixels at the screen. The quality of them matters, too. ■



Sumo Digital's *Snake Pass* supports native 4K on PS4 Pro and Xbox One X, its lush but tightly confined levels perhaps helping to avoid resorting to checkerboard rendering

Face to face

How the tech behind Apple's Animoji could revolutionise motion capture in games

Seven years on and, arguably, no videogame has surpassed *LA Noire* in recreating the subtlety of an actor's facial performances. Developed by Depthanalysis, a now-defunct sister company to the game's now-defunct developer Team Bondi, the 3D scanning technology used in the game, MotionScan, was unwieldy (actors reported being unable to move their bodies while being recorded) and almost prohibitively expensive. Its technological approach of creating, in effect, 3D sprite sheets for every frame of animation also produced, in *LA Noire*, a game of notorious heft; the recent re-release is too substantial to fit on Switch's standard memory. But while players still needed to leap the uncanny valley, when it comes to seeing is believing, the chasm has rarely been narrower than in Rockstar's gumshoe drama, even after all these years.

A new technology from Apple and the Helsinki-based Next Games may not quite produce results of MotionScan's fidelity, but it promises to be by far the most affordable and effective way of transposing human expressions onto videogame faces yet produced. Facial motion capture has, for decades, been a luxury afforded to only the most moneyed developers. The process typically requires the hiring of a dedicated studio, bespoke tracking equipment including a $3,000 mo-cap helmet, high resolution cameras and a squadron of specialist engineers. That changed when Apple announced the facial-tracking feature of the iPhone X. It's used, principally, to animate emojis via the front-facing camera so that, for example, a cartoon dog copies the head movements and facial animations of the user. But in this feature the team at Next Games spied an opportunity, creating a plug-in that allows the team to track numerous points on the user's face, and, with a button press, record and export a detailed animation file to Unity. This data can then be applied to a 3D character model in a process that takes, remarkably, less than 30 seconds.

The results are astonishing. "We saw an opportunity to utilise the technology to create a highly affordable and time-saving way in which to create motion-capture data without the need for a professional studio or engineers," says **Mikael Achren**, creative director at the company, which currently employs around 120 staff, who primarily work on mobile phone games based on popular books, TV, shows and movies. As the motion tracking data can be seen in realtime (the iPhone X connects directly to Unity via the plug-in), and replayed immediately, retakes are effortlessly straightforward. "I only need to import the animation when I'm completely happy with the take," Achren tells us. "Even aside from the fact I'm able to do all of this on a mobile phone, it's just a far more efficient, cost-effective way to put face-tracking into a videogame."

> "It's just a far more efficient, cost-effective way to put face-tracking into a videogame"

While traditional mo-cap systems used in film apply up to 350 markers to the actor's face, Apple's technology blends data from 52 target points, without the need for markers. Next Games' plug-in can utilise all of these points to create highly realistic facial animation, and this number can be reduced to model more stylised animated faces such as, Achren claims, those used in *Grim Fandango*. "It works on any shape and translates incredibly well," he says. While Next Games is yet to make the technology publicly available, it could, if made available widely, prove revolutionary, particularly for independent game makers. Using a mobile phone as an input device is, as Achren puts it, "extremely efficient", and the data has enough fidelity to be used in more ambitious projects. "The tests we've carried out using the software on high-fidelity, high-polygon characters have been very successful," he says. It's entirely possible to use it on high-end PC and console games.



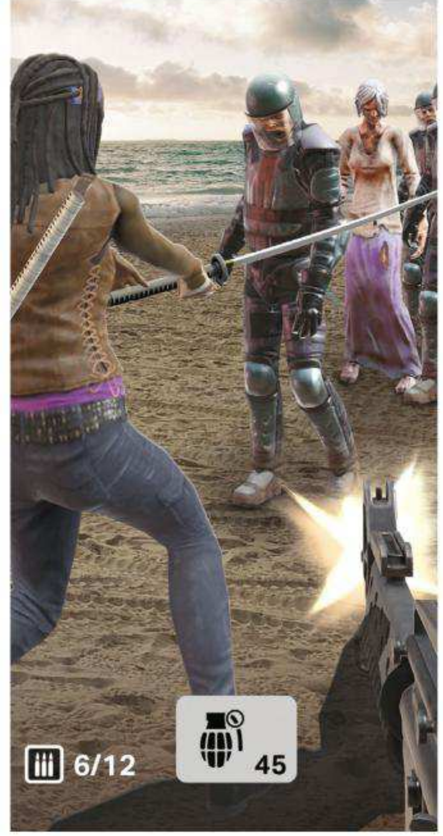
Mikael Achren, Next Games co-founder and creative director

The technology will debut this summer in *The Walking Dead: Our World*, an augmented-reality game that draws heavy inspiration from *Pokémon Go*. The game places 3D zombies on top of your surrounding environment and invites players to shoot these 'walkers' and defend survivors, many of whom are recognisable from AMC's long-running TV series. Players are encouraged to co-operate with one another, taking part in weekly challenges, for greater rewards, and teaming up to save survivors, build shelters and temporarily reclaim a town.

To show off the face-tracking capabilities of iPhone X, *Our World* includes what is perhaps best described as a zombie mirror mode. This uses the face camera to animate a walker's head in realtime, copying the player's facial expressions and movements, Animoji-style. As has become de rigeur in these #content-rich times, a short message can be filmed using mirror mode – the app also zombifies the player' spoken voice – and sent to a friend (preferably, presumably, a brainy one). ■



Apple's TrueDepth technology projects more than 30,000 dots via the phone's camera onto the user's face in order to facilitate facial recognition



As with most smartphone-based AR games, *Our World* works best outdoors, where characters are less likely to collide with real-world walls. Shooting zombies is more frantic than catching Pokémon, making it harder to blend in with pedestrians


Animators will first set up a number of morph targets – smiling mouth, closed eye, raised eyebrow – which have the character model mimic mocap data realistically. "It takes a few hours," says Achren. "But, when you have that, you're good to go"



WALKING SPREAD

AR walkabouts have infected Hollywood



The Walking Dead: Our World is just one of a slew of augmented-reality games styled after popular film and TV properties due for release in 2018. *Jurassic World Alive* will also use Google Maps to geolocate gameplay, superimposing dinosaurs onto real-world locations, while *Pokémon Go* developer Niantic is finishing work on its next major AR game, *Harry Potter: Wizards Unite*. Perhaps the popular fiction best-suited to AR game treatment, however, is Ghostbusters, for the grimly practical reason that spectres don't look strange when they glitch through walls or the floor. *Ghostbusters World* will be a forthcoming collaboration between Sony Pictures Entertainment Consumer Products, Ghost Corps and publisher FourThirtyThree.

Rune at the top

How empowering players and developers has given one of the world's most popular MMOs a new lease of life

As service games become increasingly prevalent, developers across the industry are obsessed with finding ways to not just attract players, but retain their attention; to not just build a fanbase, but to foster a community. Cambridge-based Jagex seems to have mastered the art: on average, players of its evergreen MMO *RuneScape* stay with it for seven years. Then again, it's had plenty of practice – *RuneScape* has, after all, been around since 2001.

"We like to use the slightly euphemistic phrase 'It's been 17 years in the making'," CEO **Phil Mansell** laughs. Naturally, the game has evolved significantly during that time, but so too has the way Jagex has communicated with its players. During the game's infancy, creators Andrew and Paul Gower were able to talk directly to a small group of early adopters via blog posts or in-game broadcasts. "All through *RuneScape*'s life, it's effectively had an IRC client and server inside the game," Mansell says. "So it had much more flexible chat and social systems than most games, certainly in those earlier days." At a time before Facebook and Twitter, *RuneScape*'s social features were one of the reasons it grew so rapidly: it became especially popular with students, who would use the game to socialise outside of school and college. "The level of conversation that was possible for the Gowers to have with players was quite deep," Mansell says. "What we tried to do was maintain that."

Not wholly successfully, he concedes. As player numbers shot up, Jagex didn't always manage to listen to everyone's needs. Sometimes, it made changes, believing they were for the best, without properly consulting the player base. "We took big steps to modernise the *RuneScape* experience five to 10 years ago, and some players liked those changes, but other players felt alienated quite a lot."

Over the last five years, Jagex has made a concerted effort to go back to its roots, embracing a closer, more collaborative mentality, and involving the community more deeply in its decisions. Around 2012, the studio sensed a schism between progressives and traditionalists. While plenty of players wanted new features and fresh challenges, others were seeking a feeling of comfort and familiarity: a place they felt at home, able to rely upon their hard-earned mastery of the game's systems. With these two sections of the community beginning to drift apart, Jagex made the radical decision to split the game in two.

> While plenty of players wanted fresh challenges, others were seeking a feeling of familiarity

Hence *Old School Runescape*. "Part of the whole rationale of that game is maintaining that nostalgic vibe from a certain period of time, but we're still running it as a contemporary live service," Mansell says. "You get some other MMOs that rerun old servers, which is a pretty cool idea, but we're basically running a classic game with a 2018 mindset." Different approaches are required for these two different audiences – in *Old School*, for example, new features require 75 per cent approval from the user base before they're implemented. "Obviously it's very empowering for players, but for us it means we have to think incredibly deeply because we don't want to waste their or our time starting work on stuff that won't pass polls." Jagex has established and refined a protocol for this process, involving Q&A livestreams where players can chip in ideas for the developers to discuss, with on-the-spot polls and further discussions before a general consensus is reached. When a feature idea goes before the whole player base, it gets even more granular: players can give their opinion on quest rewards, cooldown timers and more.


Jagex CEO Phil Mansell

In a general sense, it's about including the community in each step of the process. Developers are constantly talking to players on subreddits, forums and Discord channels; there are 150 company Twitter accounts which keep the conversation flowing. At a time where publishers and PRs retain strict control over a game's messaging, Jagex trusts its staff enough not to constrain them in what they discuss, lending social interactions a more personal touch. "We really want them to go and talk in-depth with our players and for that to be part of the benefit of working here."

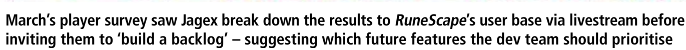


In other words, it's giving both its developers and its audience a voice. "If you do that, two really important things happen," Mansell says. "One is that players feel like they have a real stake in the game, because they've made that contribution to it. They have a deeper emotional investment, and that generally means more loyalty. Secondly, the game is therefore better crafted to what they want."

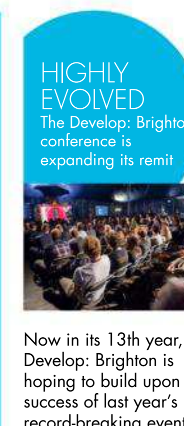
It's working, too. Recently, *RuneScape* had its highest concurrent player count in eight years; its subscriber numbers are also at an eight-year high. It's proof that its philosophy isn't just a theory – and that's why Mansell is keen to share the company's wisdom at his forthcoming Develop: Brighton keynote. "What I'm really hoping is a lot of the principles we talk about are not specific to these particular games and are actually virtuous ways of working. It's not easy, but it's beneficial for both developers and players." ■

The company has plans for other games, but *RuneScape* remains the primary focus. Mobile versions with full crossplatform functionality are currently in closed beta and due for release before the year's end





March's player survey saw Jagex break down the results to *RuneScape*'s user base via livestream before inviting them to 'build a backlog' – suggesting which future features the dev team should prioritise





A senior artist on the *Old School* team, known to *RuneScape* fans as Mod Ghost, hosts art livestreams, showing his process to players. "It's community feedback in a tight loop," Mansell says

HIGHLY EVOLVED

The Develop: Brighton conference is expanding its remit

Now in its 13th year, Develop: Brighton is hoping to build upon the success of last year's record-breaking event with a number of key changes. Traditional curtain-raiser Evolve, which centres on cutting-edge developments across the industry, is now a full track within the main conference programme, which has expanded to run for the full three days. Elsewhere, a brand new track, Discoverability, is designed to help advise developers on gaining player attention. The Develop Game Jam and Indie Showcase competition, meanwhile, will both return. For further information or to book tickets, visit developconference.com.



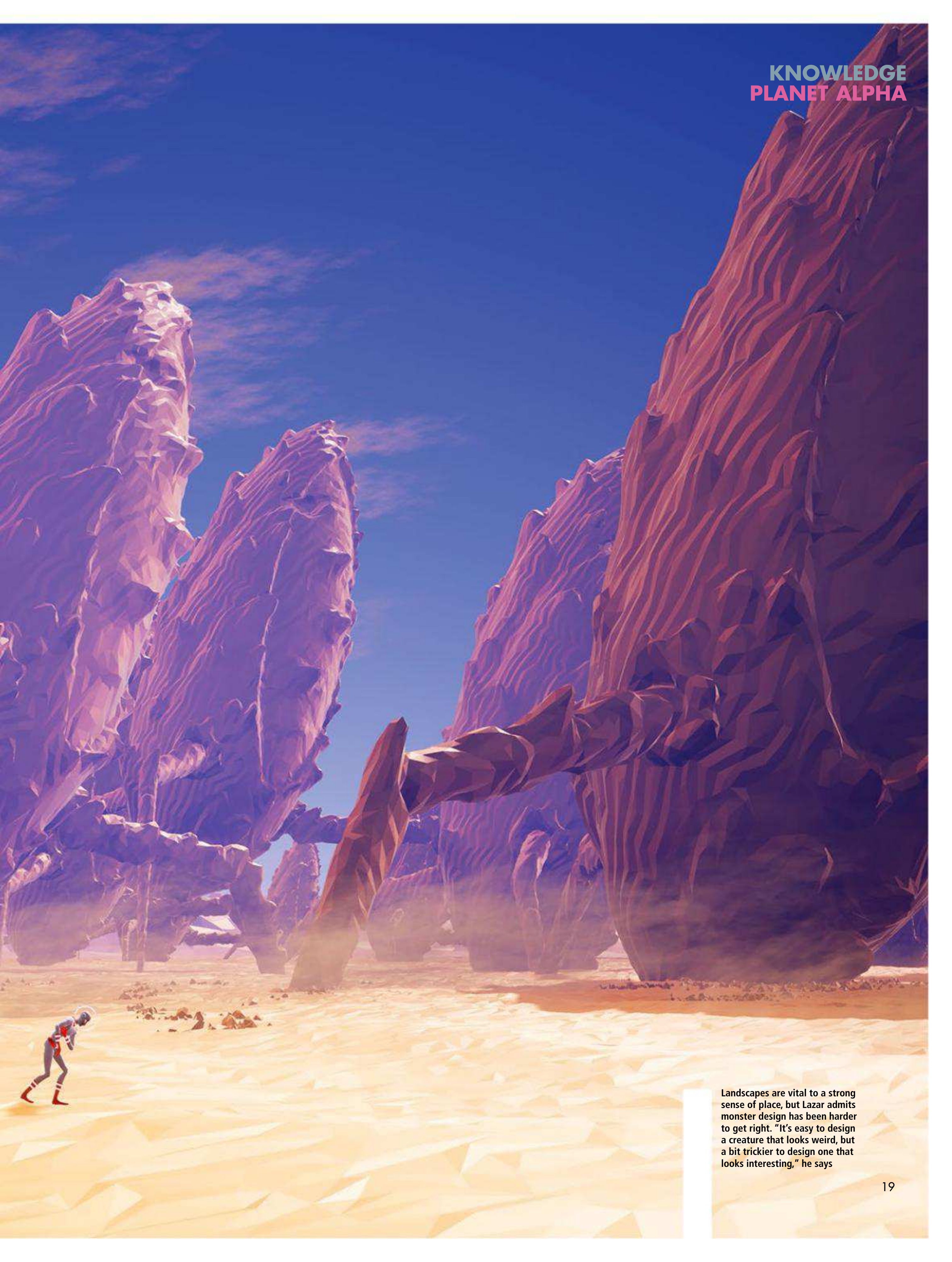
ALPHA BET

How Scandinavian sunsets and solo work constraints gave rise to a stunning sci-fi platformer

You might think you can tell **Adrian Lazar**'s sources of inspiration for the development of *Planet Alpha*, a side-scrolling platform adventure set in a pastel sci-fi world. Yet while he admits to paying a certain homage to the likes of *Another World*, it was his relocation to Denmark that most heavily informed the look of this striking game.

"In 2009 I moved to Copenhagen and was fascinated by the long-lasting sunsets that change the skies in dramatic ways," he says. "I was fascinated by the long and colourful twilight, when the sun lowers and the sky is scattered with vivid shades. It's a huge, often dramatic transformation."

To that end, Lazar implemented a day/night cycle, but found flicking between times of day so engaging he turned it into a game mechanic. *Planet Alpha*'s look, meanwhile, was defined after Lazar, the only artist on the project, got rid of textures because they took too long to make. Initially a solo gig, it's now being made by a team of seven, and is due later this year for PC, PS4, Xbox One and Switch. ■



Landscapes are vital to a strong sense of place, but Lazar admits monster design has been harder to get right. "It's easy to design a creature that looks weird, but a bit trickier to design one that looks interesting," he says

Soundbytes

Game commentary in snack-sized mouthfuls



"Now that it is clear that **children and vulnerable people** are exposed, game manufacturers and parties such as FIFA are called upon to call a halt to this practice."

Peter Naessens, director of the Belgian Gaming Commission, calls time on loot boxes. It's finally actually happening, maybe, we think so anyway



"This laissez-faire model of curation, and [saying] **the market will solve the problem**? We all know how that works. It just doesn't fucking work."

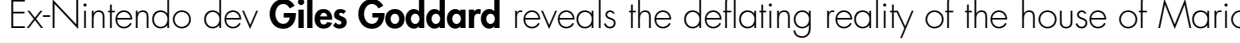
Funomena's **Robin Hunicke** has had enough of Steam's free-market approach to the digital discovery problem



"Games used to be where you went **when your career was over** in front of camera. Every actor I know is searching for a lead role in a game."

Actor **Christopher Judge** – best known, until *God Of War*, for Stargate SG-1 – predicts a flood of Hollywood talent to videogames

"It's such a clinical, rigid way of working. It's white, it's cubicles and bells ringing for lunch and for going home and that's it. How they get **any creativity out of that place** is beyond me."



Ex-Nintendo dev **Giles Goddard** reveals the deflating reality of the house of Mario

ARCADE WATCH

Keeping an eye on the coin-op gaming scene



Game The Kung Fu Vs Karate Champ
Manufacturer Jae Lee

E319 brought news of the Exa Conversion Kit, a new multi-game arcade board whose maker is putting indie developers at the frontline of its planned assault on the coin-op scene. It's a fine idea, not least for how it gives manufacturer Exa-Arcadia a way to amass a sizeable catalogue in relatively short order by signing up games which have already been developed.

Okay, *almost* developed. Exa's latest signing, *The Kung Fu Vs Karate Champ*, is the work of one-man developer Jae Lee and has been available through Steam Early Access for over two years, under the (snappier, if you ask us) name *Shaolin Vs Wu Tang*. Like Lee's debut, *Kings Of Kung Fu*, this is a love letter to real-world martial arts; the action is balletic and athletic, but more grounded than the sorts of fighting games you typically find in Japanese arcades, with nary a projectile in sight.

Its range is rather broader than its title suggests, too. There are no character names, just a host of fighting styles in appropriate clothing, which gives Lee an opportunity to pay tribute to classic kung-fu cinema without getting the lawyers involved. Jackie Chan, you say? Not a bit of it; that's just what all drunken masters wear. Now you mention it, that Jeet Kune Do fighter *does* have Bruce Lee's haircut, but we assure you it's just a coincidence. Lee has, however, got his wallet out for the fully licensed soundtrack, which is packed with kung-fu movie classics.

While well received by players on Steam, it's hardly set the world alight: sales-tracking site Steamspy puts sales in the lowest possible bracket of between zero and 20,000 units. Yet it may pull in crowds in arcades in Asia. Here's hoping none of them contains an IP lawyer on the make.



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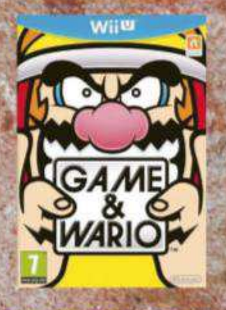


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My Favourite Game Alessandro Cortini

The Italian musician on his Commodore childhood, VR and running for hours in DayZ

Alessandro Cortini is an Italian musician best known as a member of American industrial band Nine Inch Nails, but has also produced music in other collaborations and solo projects under different names such as Sonoio and Blindoldfreak. Besides music, videogames have been a lifelong obsession, beginning back in his childhood in Italy.

What are your earliest memories of videogames?
They go back to summertimes when my parents, my aunts and uncles would get together after dinner at these outdoor bars – a lot of these places would have one or two arcade cabinets. The ones that I remember most are *Donkey Kong*, a platformer called *SonSon*, and *Moon Patrol*. My first gaming system was a Commodore 16, which wasn't nice. I lasted a year on that – then I was able to get my parents to get me a Commodore 64. From there I went from cassettes to floppy disk and then Amiga, which I played for a long time.

That's a computer-focused upbringing. Did you struggle to persuade your parents to get you a console?
Yeah, I think because there was an illusion from a parent's point of view that if you bought a computer then it'd be a compromise between gaming and also learning how to program.

Did you learn to code, then?
No, not a single language (laughs). As a creative, if I'm doing something and I don't get some sort of feedback right away, I'm like a child who easily loses interest. Second, I've never been a typer – to this day, I still type with two fingers. I did, however, build a PC rig a while ago, but that was for VR.

How are you getting on with VR?
I think it's finally what they promised back in the '90s. I remember playing *Half-Life 2* with one of the developer kit versions of the Oculus, where you're running away from the Combine, and you're on the roof, and I remember just stopping and looking around – not even playing, while people are shooting at me – and realising, 'Holy crap, this is new'! My tolerance is about an hour. There's also an issue: I have to wear glasses, and I have only one pair that actually fits inside, but it makes it easier for everything to get foggy. My wife tends to have higher tolerance, so she can play for two hours no problem. I've tried to get *Skyrim* VR for her, but *Skyrim* already stole her life when it first came out so she's scared of going back in (laughs).

Are you also drawn to that kind of huge open world?
I've tried *Skyrim* and *Fallout*, but just can't get into them, because there's just so much stuff to do. They say you can do whatever you want; I don't *want* to do whatever I want in a game. I want a specific set of rules. I also don't want to be told what buttons to press all the time – it's something in-between. I grew up with games that still let you explore to a certain extent, but made it clear where the boundary was. I prefer a set story, or at least, where the map is limited, enough that you don't think it's going to be a job to finish.

What are you playing now?
The only game I play nowadays is *DayZ*. I like the idea of just running around a field, looting, getting food, and not a lot happening. People complain a lot about the lack of action, but if you wander around for three hours and nothing happens, and then all of a sudden you see another player ahead, I can't tell you how scary that is – it's a feeling you'd never get from a game with much more concentrated action.

> "I like the idea of just running around a field, looting, getting food, and not a lot happening"

So is that top of your all-time list?
It's probably my favourite at the moment. But of all time? Probably *Half-Life 2* – that's the game that's left more of a mark.

Do you have any plans to make music for games?
I've had a few proposals, but it's a volatile business – you start talking to people a year in advance and then the project changes radically, and wasn't what you talked about originally. I hope it'll happen in the near future. As a gamer, I feel like I have a more cohesive relationship between music and the game itself. That'd be a challenge I'd be more than happy to take on. ■

MEAN MACHINES
Cortini was born and raised in Northern Italy. He moved to the US to study guitar at the prestigious Musicians Institute in Los Angeles, though it turned out he would form a greater connection with synthesisers. In 2004, he became a member of Nine Inch Nails, recording and touring with them until 2008 when he left to pursue other projects including electronic-alternative duo modwheelmood, one-man band Sonoio – and producing for other artists such as Ladytron and, unexpectedly, Christina Aguilera. He has, however, continued working with Nine Inch Nails as a touring member following their reformation in 2013. Their next live UK performance will be at the Meltdown Festival in London in June.





Cortini got married earlier this year, and says Trent Reznor's wedding gift to the couple was a PC gaming rig. Despite the possibilities, he only uses it for *DayZ*: "Some people think that's a waste, but I'm having a blast"

WEB
Adobe Flash's Gaming Legacy
bit.ly/flashlegacy

Ben Latimore is on a mission to save thousands of Flash games from certain obscurity. In this article, he explains why Flash support is due to disappear in just two years' time, as well as how likely we are to lose several culturally important titles when Adobe pulls the plug. Thanks to sitelocking, not every game can be downloaded and saved to a hard drive: DRM and online multiplayer functionality prevent some from being played without the intended servers. And it's already started happening. But Latimore introduces Flashpoint, a Flash-game preservation project that functions as a kind of playable museum by using the Apache web server, hacks and a whole lot of Google Drive space. The legality of it is questionable, but Latimore is something of a vigilante hero in our eyes.



VIDEO
Calamari Inkantation feat. Nintendo Labo
bit.ly/splabo

We knew it wouldn't be long before some whizzkid hammered Nintendo Labo's cardboard piano into musical pulp. Sure enough, Japanese electronica artist Geniway has stepped up to the plate with a brilliant Labo arrangement and performance of *Splatoon* track Calamari Inkantation. It's lovely to watch him batter at the chunky keyboard for the melody, but more intriguing is his use of a Joy-Con as a motion-controlled drum machine – and his wobbling of the instrument to coax out a vibrato. Don't tell the Squid Sisters, but we think we prefer it to the original.

GAME
10 Mississippi
bit.ly/10missi

You will feel uncomfortable playing *10 Mississippi*, and that's exactly the point. Creator Karina Popp plays herself in this stop-motion photography game, in which you adopt a firstperson perspective and are made to perform her daily routine. Shaving her legs is done by tapping across and up on the arrow keys, buttoning up her blouse with T, Y, G, H, B and N, and taking a pill with the Ctrl key. *10 Mississippi* is about taking control away from the player and forcing intimacy, which becomes increasingly clear as you type out a private email, or witness Popp's nighttime activities. Each voyeuristic daily cycle reveals a little more about the author, successfully challenging the idea of a protagonist as a device for our own egos, instead having us study a different identity to our own.

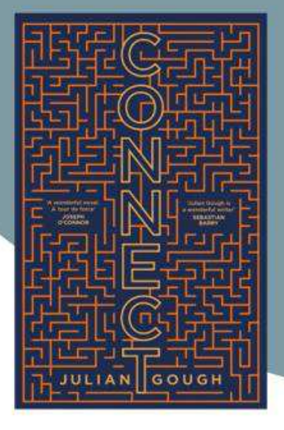


THIS MONTH ON EDGE

When we weren't doing everything else, we were thinking about stuff like this

BOOK
Connect
bit.ly/readconnect

The latest instalment in a genre that could be accurately summarised as 'What if phones, but too much?' is Julian Gough's Connect, the futuristic story of biologist Naomi and her 17-year-old son. The stereotypical Colt is an awkward virgin and talented coder addicted to his VR headset, who sets off a life-altering chain of events after leaking his mother's controversial research. It's uncomfortable stuff from the get-go (we didn't ever need to read the phrase "genital arms race", but hey, a problem shared, and all that) stuffed with clichés and borrowed philosophy that hopes to distract from a lack of intellectual rigour. Then again, Gough was the man behind the uninspired posturing of *Minecraft*'s 'End Poem', so we're not really sure what we expected, looking back.



continue

The comedian
Stephen Fry makes a cameo in *Destiny 2*'s Warmind DLC

Crater good
The drama in *Fortnite* continues: a comet creates Dusty Divot

Pink pound
An *Overwatch* skin will raise thousands for breast-cancer research

A different tune
EA announces a March 2019 release for the *Destiny*-ish *Anthem*

quit

Amazon crime
Alexa skill Pac-Man Stories gives the silent hero a voice. Weird

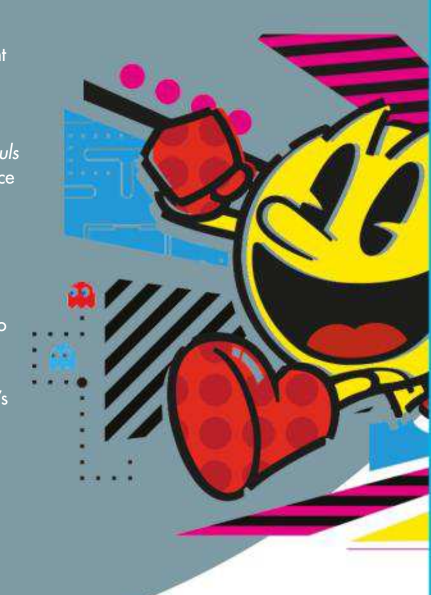
Setting sun
The original *Dark Souls* disappears in advance of the remaster

Spend to save
A charge to back up our Switch saves? A bit harsh, Nintendo

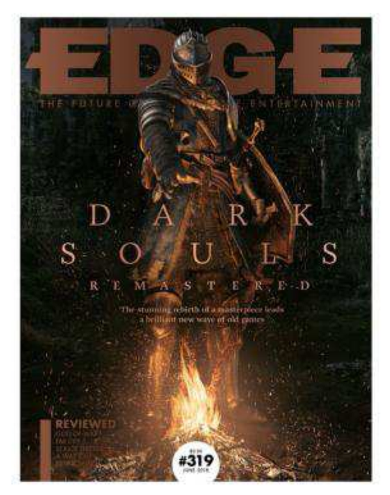
Humble pie
It's sad to see Bungie's struggling sequel in Humble Monthly



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DISPATCHES JULY



Issue 319

Dialogue

Send your views, using 'Dialogue' as the subject line, to edge@futurenet.com. Our letter of the month wins a year's subscription to PlayStation Plus, courtesy of Sony Interactive Entertainment



PlayStation.Plus

Back to basics

It was great to read Nathan Brown's column in **Edge** 318, in which he relays the excitement of his son "getting into *Mario*". You can't beat playing a videogame with your children, as I've recently discovered.

My five-year-old twins have played the occasional videogame on a tablet or smartphone, but their first experience of *Super Mario Odyssey* (following the purchase of a Switch "for the family" at Christmas) has secured in them a love of all-things Nintendo.

The great thing about the newest generation of small humans is that there is no prejudice on a game based purely on its appearance. My generation (which I will optimistically assume I share with many **Edge** readers and magazine staff!) has grown up with the knowledge that games have evolved from a technical perspective over the decades, as more 'bits' have been added to the console or computer that powers them. An 8bit racing game on the Spectrum looks very different to the latest iteration of *Gran Turismo* or *Forza*, and we know why.

I recently read on a gaming forum a comment in which someone was ruling out playing many of the latest indie games on Switch because those games are doing "that whole 2D pixel thing" that they had to settle for in their youth. The implication was: why play games that look like that, when I can play the latest triple-A blockbuster? In my opinion, however, ruling out a game based on its pixelated artstyle is quite frankly ridiculous.

But the new generation of players hopefully won't see things from that perspective. My twins have no prejudice on a game based on its graphics: *Super Mario World* on the SNES Mini captures their imagination just as much as *Odyssey*. It's all about the gameplay for them. They know it's just as much fun to bounce on a Goomba's head in 2D or 3D.

There is however a downside to my children's new-found love for *Mario*. I now feel incredibly guilty if I search for more Power Moons after they've gone to bed in the evening. I feel *Mario*'s kingdoms are out of bounds after-hours! Ah well, it could be a good excuse to purchase *Zelda: Breath Of The Wild* so that I can claim that one as my own. (Until the twins discover Hyrule too…)
Ben Bulbeck

Quite. In this pixel-counting age, what a pleasure to fire up an old game and not be met by grumbles over resolution or framerate. We did wince a bit when we last fired up *Galaxy*, admittedly.

"In other words, the better the algorithms become, the more predictable the game will be"

Gatecrasher

E318 started with an uncanny article about Ubisoft's research into artificial intelligence. One so powerful, it might be able to create games like a human developer would. I wish the article would go into more depth as to how La Forge plans to do so, as this is sublime stuff. Imagine the singularity first being noticed not by us being physically enslaved by the machines, but by our entertainment being capsized by algorithms (which might actually already be the case).

Indeed, I am cynical about this approach. Is it just me or is Ubisoft only digging itself into a greater hole? Its open-world games are already extremely formulaic, and thus bland. AI has always only been as good as its ability to seem like what we expect it to be. In other words, the better the algorithms become, the more predictable the game will be, whether such intelligence is duplicating 16th century Venetians or 21st century programmers.

The antidote to such a mishap can be found in the same issue of **Edge**. Having three runners and four designers talk about what



makes a speedrunner game tick is delectable journalism. Games like *Celeste* and *The End Is Nigh* are examples of tightly yarned game design. The article emphasises the struggle of making a product good enough for the hardcore. Luckily, Matt Thorson and Edmund McMillen are keenly aware of what gamers are looking for: something to break. That's because it's in such eureka moments, when we find a way to transcend the designer's intention, that we are truly unique as players. And so, these indie games instead focus on giving players ways to tear their design apart. The thing is, we're ultimately not interested in how clever games can be; we're interested in how clever games allow their players to be.
Robert August de Meijer

Ubisoft's likely counter to that would be that improvements in AI are likely to make their worlds feel *less* predictable, but point taken. Regardless of the outcome, it's good to see big publishers investing in areas we thought they'd long since left behind.

One nation

Having been an avid gamer for many years I have found that my mode of gaming has changed as my circumstances have changed. In the past I would think nothing of spending hours sat in front of the TV playing the latest release on the Dreamcast, Xbox 360 or their ilk. But as I've got older and had a family I've found that my time and access to the TV and my PS4 has become more and more limited. This led to playing more on 3DS, iOS devices and now Switch. Yes, you can argue that the quality of Switch and iOS gaming isn't as good as an Xbox One X or PS4 Pro, but for me it hits the sweet spot of console games with good enough graphics on the move.

As much as I enjoy Switch and iPhone, there is one thing I miss: achievements. Apple's Game Centre is a largely forgotten novelty and Nintendo don't even support such a thing. I know people will argue that the lack of achievements is a good thing as it means a purer gaming experience, but I enjoyed the challenge of getting them and also the competition with friends to get the best Gamerscore, since online gaming isn't such a viable option for me currently.

This got me thinking. Microsoft has already shown through games such as *Minecraft*, *Age Of Empires* and even *Microsoft Solitaire Collection* that it can get Xbox achievements working crossplatform on iOS, and if the current rumours are true Xbox achievements could soon be coming to *Minecraft* on Switch. The only thing here is that these are all Microsoft titles. Why not open this feature up to everyone? Create an API that developers can apply to use to get achievements added to their games on all platforms. I'm not necessarily suggesting bringing all Xbox Live features to all platforms, but I can't see that allowing others to hook into the achievement system would be a huge cost. And think of the potential benefits in advertising and exposure! Microsoft could stipulate that in exchange for using the system, developers need to include an Xbox Live banner on the app icon, as a splash screen at the start of the game, or even as a visible icon on the front of the Switch game case. For us gamers we get an excellent achievement system and some subtle brainwashing to associate Xbox Live with non-Microsoft platforms. I can't see a negative for anyone here, but I'm no expert. Please Microsoft, make it happen.
Gideon Grimes

It says much for how much things have changed at Microsoft over the past couple of years that this doesn't seem too far beyond the realms of possibility. Which is not to say we'd be delighted to see it happen.

Bugged out

Last week I was struck by a bug whilst attempting to load a save of Day 44 on the PS4 version of *Firewatch*. The save wouldn't load and none of the fixes suggested on the developer's website worked. Not thrilled at the prospect of restarting, I contacted Campo Santo and they could not have been more helpful or apologetic. Despite providing me with a solution that ensured I was able to complete the game, they could not fix the bug. And that got me thinking.

Imagine buying an edition of Monopoly that, mid-game, prevented the pieces from moving or any transactions taking place. You'd take it back and demand a refund. And you'd be well within your rights to do so. Yet, with digital content, when things like this happen, we seem to shrug and accept that 'bugs happen'. I spent a good deal of time restarting my PS4, re-syncing cloud saves and, finally, starting it in safe mode and rebuilding its database before throwing in the towel. Can it be said that that is something I should be expected to do with a product that is of satisfactory quality?

And that, legally, appears to be the question. Had Campo Santo not be so thoroughly decent, I would have been faced with lumping it or seeking a refund. According to the Citizens Advice Bureau, the Consumer Rights Act 2015 applies to digital content including games, and means I would be entitled to repair or replacement, or even a full or partial refund if a game is faulty. Given that the bug couldn't be fixed, I'd have sought a refund. I got the game on the PlayStation Store, so would the money come from Sony as the person I contracted with to buy the game? Can you imagine Sony just issuing a refund, or would you expect it to contend that occasional bugs in a game are to be expected?

Regardless, I, for one, feel that gamers should not be so willing to lump it when a game is released full of bugs. If we took a stand the next time a game is shipped in a sorry state, perhaps publishers would stop releasing games before they are ready?
Simon Brindle

Bugs always slip through somehow, just as typos can find their way into magazines. (If you ever spot one, please don't ask us for a refund. Times are tough enough as it is.) ■



STEVEN POOLE

Trigger Happy

Shoot first, ask questions later

Sometimes playing a videogame just feels like too much work. There's a reason, after all, why some of the academic crowd follow Espen Aarseth in calling games "ergodic literature": it's from the Greek ergon, work. There are evenings when one wants just to lie back on the sofa, covered in crisps, and be entertained. Hence, perhaps, the extraordinary popularity now of watching other people play games for us.

Streaming on Twitch, of course, is currently the big story. The *Fortnite* streamer Ninja is making half a million dollars a month. But there is now a whole ecosystem of more curated, edited gaming videos, which in a way map onto sporting events. There's something hypnotic about a speedrun, which is the 100m; a compilation of surgical faceshooting will put us in mind of archery or Olympic shooting; and yet other ways of performing play have more in common with ice-dancing. I have recently been bingeing the fine work of a practitioner of the latter, a hilarious virtuoso who goes by the handle of StealthGamerBR.

StealthGamer is what is known as a 'skill-killer', which is someone who murders virtual people in a particular stylish way. As the handle implies, he or she (and from now on I will use the singular 'they') concentrates on stealth games, and stretches their mechanics to breaking point. In *Dishonored 2*, they decapitate one man and use the severed head to knock another guy off a ledge; they throw a wine bottle high into the air before killing one guard, catching the bottle, and then killing the second guard and bisecting the bottle with one sword-stroke.

Such videos are a species of performance art, and also of dynamic criticism: they reveal deep aspects of the games' character that aren't obvious when you are personally struggling to reach the next checkpoint. To watch StealthGamerBR play *Uncharted 4*, for example, is to be reminded just to what extent that game is as bloodthirsty a murder simulator as any. By contrast, *Hitman*, which is totally upfront about being a murder simulator, is the setting for some of StealthGamerBR's most varied and creative work. Sometimes they go for serious stealth; sometimes they literally kill everyone standing in the most sadistic and giggle-inducing ways imaginable.

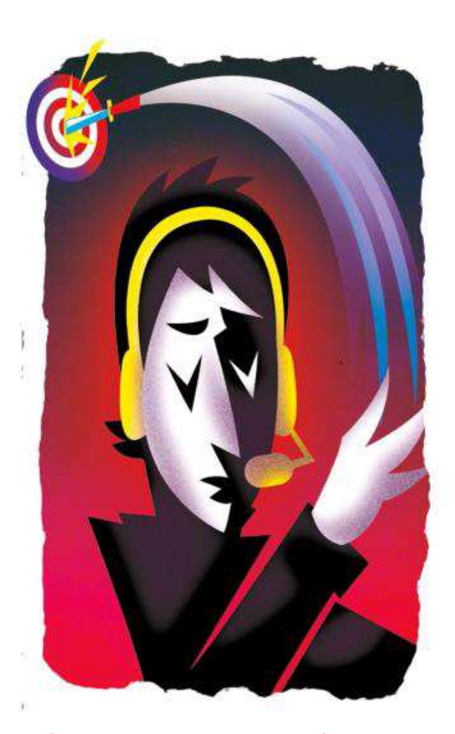


Illustration kaeru.com.ar

There are evenings when one wants just to lie back on the sofa, covered in crisps, and be entertained

StealthGamerBR's genre is well chosen because stealth games in general, while being particularly tense and stressful to the player, afford more opportunities for performative enjoyment. There is something ineffably Pink Panther-ish about them when played as well as this. And if, as some theories of comedy surmise, comedy is predicated on asymmetry of information, then stealth games – in which you are relentlessly offing the unsuspecting – are inherently comic. It's tempting to say, indeed, that a game which lets you play it in different literary moods (slapstick, solemn, brutal, sarcastic) is just a better game.

At first sight another game-video genre, the 'fail' video of ridiculous bugs, looks like the opposite of skill-killing. In '*Far Cry 5* FAIL compilation', a quad-bike is loaded into the back of a truck, which immediately drives itself into a tree and explodes. A plane crashes and then takes off again before hitting a tree. Characters deliver serious expository dialogue while treading air halfway up a wall. A car-driving NPC doesn't see a trailer ramp in the middle of the road and drives off it, hurtling through the air before crashing. Imagine his confusion.

Here, the relentless attempt to break a game bespeaks a kind of awed reverence for games as they normally operate. An amusing bug is the gameworld analogue of a miracle, an ecstatic moment when the laws of nature are upended. Just as, for the religious, a miracle provides proof of God's persistent underpinning of the world, a spectacular videogame bug reminds us that everything in the game happens at the pleasure of the godlike designer. So, in a way, the fail compilation pays tribute to the work as much as a brilliant skill-killing stealth-run does.

You might not want to go on a perilous sea voyage, but you'd listen to the returning sailors' yarns all night in the tavern. Just so, life is too short to play every 60-hour game, so we have these YouTubers. They are editors, critics, and witnesses. They are explorers in other worlds, heroically suffering the tedium and boredom of any long adventure and bringing back, for our pleasure, only the treasurable highlights. Here, they say, be monsters.

Steven Poole's Trigger Happy 2.0 is now available from Amazon. Visit him online at www.stevenpoole.net



NATHAN BROWN

Big Picture Mode

Industry issues given the widescreen treatment

So, it has happened: the **Edge** brood has further swelled. Labour began when I was about halfway through last issue's cover feature; while it certainly led to a marked uptick in writing speed, it is neither something I would recommend nor intend to repeat. But still, Child Two is here, and as I expected, having a second kid is very much the New Game Plus of parenthood: you've seen this all before, and it's technically harder, yet feels easier because you're stronger and have seen it all before. It's the sort of thing that I could probably spin out to full wordcount, if I was prepared to really stretch the analogy to breaking point. But that would be disrespectful to readers, I suppose, and if I'm honest I'm far too tired to see it through.

I didn't expect the new arrival to be the complicated one, to be honest. At that age they don't do an awful lot and have a fairly basic set of needs. The problem, I knew from talking to friends, was far more likely to be his older brother – someone who has only ever known a world in which he is the centre of everything, and whose need to burn through a seemingly infinite supply of energy would prevent us from just sitting around, exhausted from the long nights, sleeping whenever we're able to.

I need to keep him entertained, in other words, and so I'd like to extend my heartiest thanks to the executive team at Nintendo for deciding to launch Labo a fortnight after my second child was born. A couple of months back, Steven Poole compared Nintendo's bonkers cardboard creation to two things with which I have plenty of recent experience. As father to a four-year-old, I am the designated foreman on any Lego project, while in the period of frantic nesting in the run-up to the new arrival's, er, arrival... well, let's just say I could build you a Billy bookcase with my eyes closed.

My eldest – heavens, I feel old saying that – likes to be involved whenever there's building going on. He struggles to parse Lego



Illustration **kaeru.com.ar**

Labo's components fit together with an elegance you'd never have thought cardboard was capable of

instructions, so needs me as interpreter, to ferret out hard-to-find pieces, and for the fiddlier parts of the build. On Ikea jobs he is a willing assistant, typically in charge of the bag of bits, always on hand with the next screw, dowel or grommet. Yet whether we're building a tiny helicopter or an eight-foot cupboard, there is always a moment where our paths diverge. Finish a Lego kit, and he doesn't need me anymore, running off to play with it. Complete an Ikea build, and he totters off, leaving me to the boring job of putting things on shelves. (He will, in time, come to realise that is the very best bit.)

What makes Labo such a revelation is that it features all the best elements of Lego and flat-pack furniture while improving on both of them and, crucially, keeping you together afterwards. You are not merely building something together; you are building *towards* something, the journey and destination both exciting in different ways. There are always parts of a Lego or Ikea build that are particularly satisfying – the moment a clump of bricks starts to resemble something real, say, or the way an eight-foot side panel slides kindly into place on a bed of dowel. Labo does that every couple of minutes, components fitting together with an elegance you'd never have thought cardboard capable of, designed with the same sort of craft you expect from a *Mario* game. And then, at the end, you both play with it.

Every new Nintendo idea brings out the naysayers, and Labo's unveiling sparked the usual forum posts and op-eds quick to decry it as poor value for money – overpriced tat powered by games you'd be bored of within minutes. Yet after one weekend with Labo, and only one big project completed, I already feel like I've got my money's worth from it. It may be made of cardboard, but it feels premium, the template sheets so weirdly attractive it's almost a shame to break them apart. And perhaps the software is disposable, but we had an excellent half-hour passing the fishing rod around the family, and we'll definitely be back for more.

It's a triumph, all told, and it's come along at the perfect time, helping bring together a family that really needs a common focal point beyond the nappy changes, sotto voce lullaby singalongs and disturbed nights. Okay, I have to live with the lingering fear that, once he's big enough, Child Two is going to get his hands on a fishing rod or piano and absolutely destroy it. But that's what high shelves are for. Labo's brilliant, sure, but thank heavens for Ikea, too.

Nathan Brown is ***Edge****'s editor, and now an expert on just how many pieces of flat-pack furniture will fit in a Volvo*



ALEX HUTCHINSON

Hold To Reset

Building a new game, a new studio and a new life from the ground up

During most planning meetings, developers talk of conception, of pre-production and post-production. Then towards the end of the meeting there'll be a pause, and someone will ask, 'What about the E3 demo? Or the pitch demo? Or the exec demo?' And everyone will groan. There's always the fantasy that we could just make the game, and that demos are an unwanted distraction. Handled correctly, however, they can be a useful checkpoint for your project and a chance to get feedback.

Better still, it doesn't matter what point you're at during game development, or whether your audience is a publisher or a player, the goal of the demo should be the same: to quickly and efficiently prove that the core of your game is enough to convince someone to give you their time, and then eventually (hopefully) their money. The questions they will ask are always the same: 'Why should I care? What does this give me that other games don't?' And, sadly: 'How much will it cost?'

At a large publisher, we could afford to have a dedicated team focused on demos, meaning that even if we were going to throw away a lot of the work, the project budget could absorb it because the potential marketing gain was huge. Nowadays, there are fewer people in the whole of Typhoon than the average *Far Cry* demo team, so that's out of the question. More difficult still, we can't throw anything away as we don't have time for serious reworking and we can't script anything to momentarily fake a finished feature for the same reason. This means we're stuck with showing the real, unadulterated state of the game, a mildly terrifying but essentially healthy situation: it is pretty much impossible for us to fake anything or overpromise.

I think demos are best delivered when you either have nothing, or almost everything. Early in development you can paint a portrait of a concept's amazing possibilities, while towards the end you have

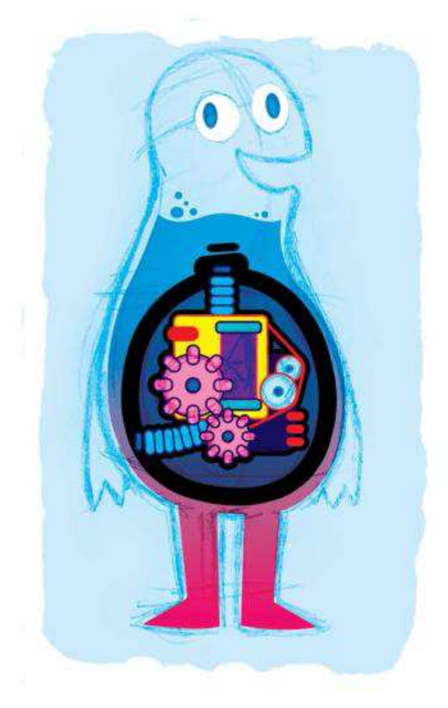


Illustration kaeru.com.ar

We're stuck with showing the real, unadulterated state of the game, a mildly terrifying but essentially healthy situation

hopefully made those possibilities real, and it's not a giant leap to imagine them polished up and shippable. Neither of those are reflective of our current situation. Our game has just stood up on wobbly legs, its gameplay features functional but still a few iterations away from meaningful depth. In other words, our game looks like it could be our idea of ready, but we know it's under-featured and unfinished, which is incredibly dangerous. So how did we focus our demo?

First, we prioritised the core mechanics. It may sound obvious, but if we could stand up the core loop, then even though it may not be polished it would still be 'true', and therefore something we could stand behind. It shows the core player actions, and how they knit together with challenges to give the player a sense of meaningful progression. We could follow up on paper with how we would grow it, even if we ran out of time to implement those elements.

Secondly, with any demo, you have limited time and even more limited attention spans, so get to the point. Sticking to this mantra had the extra bonus of immediately scoping out any narrative set-up or scripted events, which are low value and we didn't have time to build anyway. If it's crucial for understanding the game, then you can always deal with it verbally beforehand. (Unless of course you're making a game about watching cinematics and occasionally pressing X, in which case I question why you're making games at all, but in that instance invert this advice and just build a big cinematic where you can wiggle the stick while watching videos, since that's what you're selling.)

Alongside that, many people will often tell you that they don't mind seeing work-in-progress content or greybox levels, but they're (usually accidentally) lying to your face. They feel that this is true, but I'm yet to meet a publisher who didn't look seasick when they were presented with work-in-progress art. It's feasible to have a separate demo to highlight your visual target, but I am continually amazed by how hard it is for many people to deal with greyboxes or placeholder art, so these days we always assume the worst.

And thankfully, it worked. We were able to keep a small team working on the game for a short while, while the rest of us pulled together a build to take to GDC – a process which, thankfully, ended in a new contract for the project and enough money to finish it. If all goes to plan, I'll be able to tell you more about it soon.

Alex Hutchinson is co-founder of Montreal-based Typhoon Studios. He can be found on Twitter at @BangBangClick

#320

HYPE

THE GAMES IN OUR SIGHTS THIS MONTH



Explore the iPad edition of **Edge** for extra Hype content

Is less more?

"It's an interesting time," Chris Hecker once told **Edge**, when we put it to him that indie gaming was entering a golden age. "What Jon [Blow] and I talk about a lot, though, is, now we're working on big projects, will it be a golden age by the time we're done?"

At the time, Hecker was working on *SpyParty* (p42), an ambitious, asymmetrical multiplayer game about a sniper and a spy. Seven years and 97 issues of **Edge** after he wondered what kind of market his finished game would eventually release into, it is finally here, but anything but finished. It's in Early Access.

Hecker's game pushes to the absolute limit the question of when, in the modern age, a game is deemed ready for release. And while perhaps his seven years working on one, still-incomplete game may suggest a special sort of madness in its creator, on the evidence of this month's Hype crop the question of how much is enough is one with which developers everywhere continue to wrestle.

At the other extreme of the spectrum is *Radical Heights* (p46), which has launched into Early Access at such an early state that it still contains placeholder art. To the cynic it's a hurried bid to cash in on the battle-royale phenomenon by a studio still reeling from the failure of *Lawbreakers*. But *Fortnite* and *PUBG* show that this nascent genre thrives when developed in, and with help from, the public eye. In the context of its genre a quick, minimal proof of concept makes sense (though the studio's struggles are no doubt also a factor).

That's not a luxury afforded to Ivory Tower, developer of *The Crew 2*. As not only a Ubisoft game but a Ubisoft *sequel*, it must be bigger, broader, and even more packed with stuff than its predecessor. Whether that little lot constitutes a new golden age is open to question. Perhaps you'll ask us again in seven years.

MOST WANTED

Red Dead Redemption 2
PS4, Xbox One
Lawks, it's really happening. The latest trailer may have given too little away about Rockstar's western opus, but a brief encounter with the preview circuit yielded more promising details about what is sure to be the biggest-selling game of the year.

Lumines Remastered
PC, PS4, Switch, Xbox One
This rebuild of Tetsuya Mizuguchi's mesmerising music puzzler may be in development for four platforms but come on, we know that only one of them really matters. A late June release cruelly means we won't have it on Switch for the flight to E3. Miz, if you're reading, help us out.

Super Smash Bros Switch
Masahiro Sakurai's latest party brawler is unlikely to mess with a winning formula in the way *Odyssey* and *Breath Of The Wild* did, but no game will shift as many heads, or units, on Switch this year – barring any E3 surprises, anyway.



An injection of colour and charisma has done wonders. There are tradeoffs to the new attitude: we could have done without hearing the phrase "legendary badassdom"



THE CREW 2

Ivory Tower's surreal reinvention of the racer gives players licence to enjoy themselves

Developer	Ivory Tower
Publisher	Ubisoft
Format	PC, PS4, Xbox One
Origin	France
Release	June 29

ABOVE **Fast Fav shifts in the opening Live Extreme Series mission are, sadly, heralded by cutscenes rather than implemented on the fly.** LEFT **Sprint-boat racing on this lush Maine swamp is a highlight of our demo. At night, the circuit is lit up in purple neon as you dodge and weave between trees**













Each of the motor families – Freestyle, Street Racing, Pro Racing and Off Road – have an irritatingly smug champ that you can face off against to become the new top dog

The music is louder, the lights are brighter, and the rules feel more like polite suggestions as we kick out the rear of our Mazda RX-7 around a sun-soaked bend on the Miami Airport track. With our drift coming to an end and a ramp ahead, we gun the throttle and send ourselves soaring into the air. In the very next moment, our car morphs into a stunt plane, a chorus of poppy '80s synths reaching a jubilant crescendo. One wing playfully skims the surface of the water. *The Crew 2* can be summed up in one phrase, a breathy sigh of deep satisfaction: ah, this is the life.

Ivory Tower's sequel feels closer to a holiday than a videogame. It's a departure from the slight stuffiness of *The Crew*, and now hews closer to the likes of *Forza Horizon* or *Watch Dogs 2* in its carefree spin on a serious foundation. Motornation returns, modern America in idealised microcosm. This time, however, USA-lite is not weighed down by an overly serious story: while *The Crew* cast you as a bereaved brother out for vengeance, here, you're simply a rookie keen to get rich and famous.

The more bombastic your stunts, the more social-media followers you'll gain, and the bigger of a celebrity you'll eventually become. This, in turn, unlocks a generous array of missions, events and vehicles to race in and ride, whether solo or with others. Levelling up in the Street Racing family offers the Drifting discipline, while Off Road might see you bouncing across wild terrain in Rally Raid buggies or motocross bikes. Freestyle lets you pull off loop-de-loops in nippy planes, and Pro Racing is where low-slung supercars test precision handling.

Outside these disciplines, *The Crew 2* isn't burdened with anything as tiresome as logic or physics, either. While exploring in free roam, the Fast Fav system lets you use a quick-select menu to transform whatever you're currently driving into another pre-selected vehicle. Drift car to stunt plane, sprint boat to supercar, turboprop trainer aircraft into Harley Davidson hog – it all works seamlessly, surreally, wherever you are in Motornation, dropping you into nearby harbours or orienting you onto road without interrupting your flow. Even the fact that the water and air vehicles feel slightly less assured in their handling than *The Crew 2*'s weighter, more predictable cars falls to the wayside: the details are outshone by the overall effect of this total, canonically inexplicable freedom.

Unsurprisingly, it takes graft to make a game feel this way, like a lovingly curated package tour of a parallel dimension in which everything just *works*. Even with the benefit of Ivory Tower spending ten years honing a single IP, and creative director **Stephane Beley**'s 20 years of driving-game experience, *The Crew 2* took time. At the end of 2017, Ubisoft offered Ivory Tower some more of it. "It's always extra pressure, to be honest," Beley says. "We were ready to release in March, but Yves [Guillemot, Ubisoft CEO] said, 'If you want, you may have some more time'. And at this moment in your head, you think two different ways: the first is, 'Oh my God, the crunch will not stop!' But then five minutes after, you think, 'It's cool for us, for the game, for the IP. You give so much of your life to this, so it's bad to just say, 'I want to release it.' No – just get three months more."

The Crew 2 isn't burdened with anything as tiresome as logic or physics

For Ivory Tower, it's about nailing even the seemingly inconsequential things, such as the order in which players experience each and every mission, as well as essentials like ensuring the stability of the server, the quality of the UI and the reduction of the aggressive rubber-banding previously present in AI behaviour. There's no sign of these first-instalment fumbles in our extensive demo of the sequel: we group up into a four-person crew in just two simple ▶



Pivot to video

Ivory Tower hopes that *The Crew 2*'s comprehensive built-in video editor will encourage players to orchestrate and share some of their flashiest – and funniest – in-game moments. Hitting left on the D-pad opens up a Live Replay mode, in which you can compose beautifully lit screenshots (even changing the weather, if you so choose) or wind back through the last ten auto-recorded minutes of gameplay for editing and posting on social-media platforms. "The main point of Fast Fav is to enjoy it with your friends," Beley says – we think back to a brief demo moment in which we had attempted to perform a loop-de-loop-into-water landing, turning from plane to boat alongside our co-op partner.





button-presses. Dynamic graphics lick across the screen in hot pink and yellow before spitting us out into a breakneck sprint boat race in the twisty emerald canals of Little Venice on the Las Vegas strip.

We've just unlocked this new discipline: after some fairly linear, strangely sedate powerboat racing, the twitchy jetsprint is exhilarating as we jostle for space against competitors, scudding around sharp corners at ridiculous velocity. We race the loop again, and again, and again, learning when to trim for extra speed and where to hammer the nitrous. Likewise, we end up drifting in Miami Airport for a good hour or more having lost track of time almost entirely, feathering the throttle to try and perfect running the circuit in one extended slide – and hopefully beat our competitor's score.

Still, we're a little disappointed that we haven't seen the Fast Fav system used in any missions beyond the introductory race, in which we switch from car to boat to plane as the world folds in on itself to stomach-dipping effect. But Beley is quick to reassure us that Fast Fav won't be limited to free-roam only. "When you reach a certain popularity level, you unlock what we call the Live Extreme Series," he says, explaining that there will be around "ten or 15 missions" that will require you to switch between three vehicles and disciplines on the fly, including face-offs with the game's Rivals and a grand finale. "Every one or two hours, you will have a mission like that," Beley says. "But it's never enough for players, it's always 'I want more' – and of course I'm a player, too."

What's the point of innovating, after all, if you can't at least enjoy it?

Ivory Tower is no stranger to keeping a community engaged: over the last three years, the studio has updated *The Crew* more than 20 times, and released two significant expansions. Naturally, Beley has plenty of plans for the coming year, including adding yet more disciplines to the 12 that will be avilable in the base game. But *The Crew 2* already appears to have something that its predecessor never did: the benefit of prior experience and groundwork, and a newly reinvigorated attitude which makes all the difference. What's the point of innovating, after all, if you can't at least *enjoy* it? *The Crew* might have been original and inventive, but it was still stuck firmly in the po-faced machismo sometimes typical of the genre.

Now, it's positively effervescent – as is Beley himself. His obvious enthusiasm and excitement is perhaps to be expected: he's heading up a game that could prove to be something of a turning point for a studio and even a genre, and he certainly hopes that it will. "Bringing some surprise to players, even in the driving genre, it's possible," he says. "Everybody says, 'The driving genre is dead' – 13 million people played *The Crew*, so it's not dead. But yes, players really like to be surprised.

"Pushing the boundaries with the Fast Fav moment, it's *so* fresh," Beley says, his eyes lighting up. "It changes the way you play. You don't just drive a car – you create an anecdote, a story." It's clear that Ivory Tower's vision for the ultimate driving game has always been ahead of the curve – for the *The Crew* series to be as much about the social experience, or the feeling of complete freedom, as it is about burning high-quality virtual rubber.

Beley tells us he's already dreaming up another piece of mechanical magic for the next game: "I really look forward to the next one! I already have it in mind, I already discussed with Ubisoft where I want to go." For now, *The Crew 2* is here to satisfy your silliest whims, whether it's letting you trick out a dinky Mazda MX5 as a viable street-racing beast, or allowing you to morph into a plane and soar off into the New York sunset uninhibited. Racing games have always been about escapism, and here it is exactly that in its purest sense – a bizarre break from the norm. After a good few years of feverish fidelity, perhaps the genre has earned one. ■







TOP **While the moment-to-moment handling of planes isn't high-octane, the potential to pull off synchronised moves with friends is exciting.**
ABOVE **Charitably, each motor family will offer you a free vehicle upon completion of an induction mission**





TOP **Motocross is just the right amount of unwieldy, challenging and hilarious as your bike bounces wildly.**
ABOVE **Speed boats are underwhelming – races mainly require us to drive in straight lines for a long time.**
LEFT **Customisation options offered by paint jobs and stickers are dizzyingly broad. If you fancy decking your supercar out in swears and glitter, you're in luck**



HYPE

SPY PARTY

Eight years later, the party goes on

Developer In-house
Publisher Chris Hecker
Format PC
Origin US
Release TBA



After eight years of constant development, *SpyParty* has finally appeared on Steam's Early Access, and it's still far from complete. "We launched in a pretty rough state," says its sole designer and programmer, **Chris Hecker**, who was previously lead engineer on *Spore*. "It's a mix of emotions," he continues, surprisingly brightly, given that he's spent the entire night responding to support requests and had only an hour's sleep when we speak. "I'm still reeling from the whole thing of working on something this long. A launch is huge for anybody and after eight years it's huger. I'm relieved, but I'm most proud of myself for pushing the button when the game was in a state I didn't think it would be in."

The principal issue is that *SpyParty* launched without a matchmaking system. New players starting their first game are greeted by a lobby screen so old-school and programmer-made that it's presented as dense text in Times, Courier and Lucida Sans Typewriter fonts over a taupe background. It's a far cry from the elegant main menu that artist John Cimino has designed for this suave game of deception and espionage. But, faced with a looming launch date, strategically nestled in a small window for potential publicity between GDC, PAX East and *Far Cry 5*'s release, matchmaking just didn't make the cut.

Hecker did at least manage to complete a slick interactive tutorial. While it's been public for many years, having first been revealed at the Experimental Gameplay Workshop in 2009 and played by thousands of testers in a protracted closed beta, there's still nothing like *SpyParty*. And that's great: no one has undercut it. On the other hand, it's down to *SpyParty* to communicate its bewilderingly deep take on asymmetrical twoplayer competitive play. But the basics, at least, are simple. One player is the spy, and the other player is the sniper. The spy is a guest at the ambassador's party, mingling with a set of cleanly characterful AI-controlled characters, and has a series of tasks to carry out within a time limit, such as planting bugs and making contact with double agents. If they're successful, they win the game. The sniper looks in at the party through a pair of binoculars, zooming into the party-goers to attempt to identify the one who isn't an AI and to shoot them with the single bullet in their rifle. If they're right, they win.

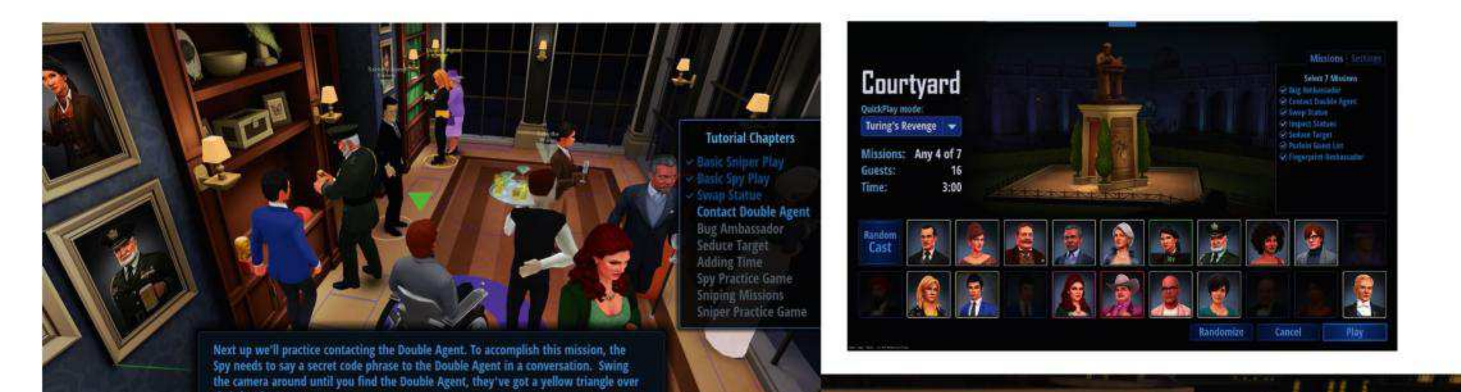
A single game won't convey *SpyParty*'s depths. For both sides, this is a game of close observation and deliberate action. The spy must always be aware of how the party guests are moving around so they can plan their strategy, placing a bug on the ambassador at just the right time while also behaving like ▶



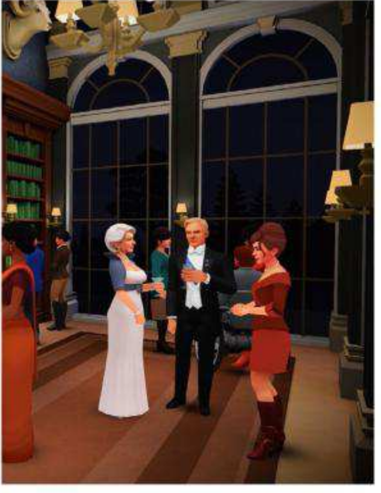
Chris Hecker was a programmer at Microsoft and later lead much of the tech behind *Spore*



SpyParty's ten different levels are beautifully constructed, each giving different opportunities for concealing nefarious deeds from the sniper









ABOVE **The tutorial is a vital tool for learning the game's fundamental strategies, taking you through a couple of the actions from both the spy and sniper's points of view.**
TOP RIGHT **The diverse roster of party goers each have slightly different strengths and weaknesses. If the gentleman with the cane bugs the ambassador with his cane hand, it's very difficult to see.**
MAIN **The spy can extend game time by going to a window or vantage point and glancing at their watch, so if the spy notices the clock going up, they should note who's looking out.**
BELOW LEFT **When the spy contacts the double agent, they say the codeword 'banana bread', which was inspired by what Hecker was eating at the time.**
BELOW RIGHT **The tutorial's first objective marks the spy with a badge, and it's still tricky to find them in the crowd, a lesson for how challenging the sniper's role can initially be**



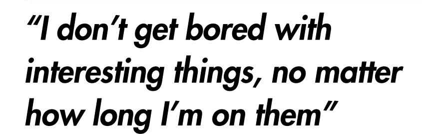
an AI. They'll also need to take note of where the sniper's laser sight is looking as it scans the scene. One task, for example, is to swap a statue. Played with mouse and keyboard, the interaction is simple enough: walk up to the statue, click to pick it up, and then click again to switch it. But if the sniper's watching, they might notice. Contacting the double agent has a similar tell. Here, the spy must stand in a conversational group with the AI character marked as the double agent and interact with them. When successful, both players hear the codeword "banana bread", a signal for the sniper to quickly take note of any guest who's not in conversation in order to eliminate them from suspicion. If they're particularly observant, they may notice who's in conversation with the two characters automatically marked as suspected double agents, or even see the player's lips move.

For the sniper, then, *SpyParty* is a game about noticing details amid roaring visual noise. To help them filter it, they can click on characters to 'highlight' and 'lowlight' them, but remember, they're looking in on the party from afar, their view obscured by walls, the bounds of their vision and wandering guests. They can freely zoom and pan their view around the building, but for new players it's a daunting challenge to track the movements of many guests, hoping to notice the instant the spy darts their hand out towards the ambassador to plant a bug on them. Yet with experience, the sniper will soon start to find the beginner's game easy.



There are four skill levels in *SpyParty*, each adding new features that broaden the possibility space in which the spy can act and the sniper must observe. Intermediate adds more mission types for the spy and asks them to complete three of a list of four so that the sniper won't know which they'll definitely attempt, thereby adding new layers of guesswork and subterfuge. Then, with even more games under their belts, players will be ready for Experienced mode, which adds complications to the spy's game. Now some actions come with an active-reload-style skill test. Hitting the red zone in the gauge on swapping a statue will result in a slower animation that the sniper will be more likely to notice. Nailing the sliver of green in the gauge, however, will mean that the statue isn't immediately swapped by the player. Instead, an innocent AI character will do it for them. Similarly, hitting the red zone for the double agent task will mean the player's character will conspicuously cough as they're saying 'banana bread', while a green result will mean their lips won't move at all.

All these subtle systems give *SpyParty* extraordinary depth, enough to fuel the 1,000 hours of play that some of its longterm testers have racked up. But for the two years in which Hecker's planning to keep the game in Early Access, he wants to push it to a 5,000-hour game, "So you're in the *Counter-Strike* and *Dota* realm". Once he's addressed *SpyParty*'s launch issues, it's time to work on 'traits', giving to each of the game's 21 characters three behavioural tics from a set of 20. For instance, the General likes a tipple, so he always accepts drinks from the waiter – so if you're playing spy, you'd best spend valuable time grabbing



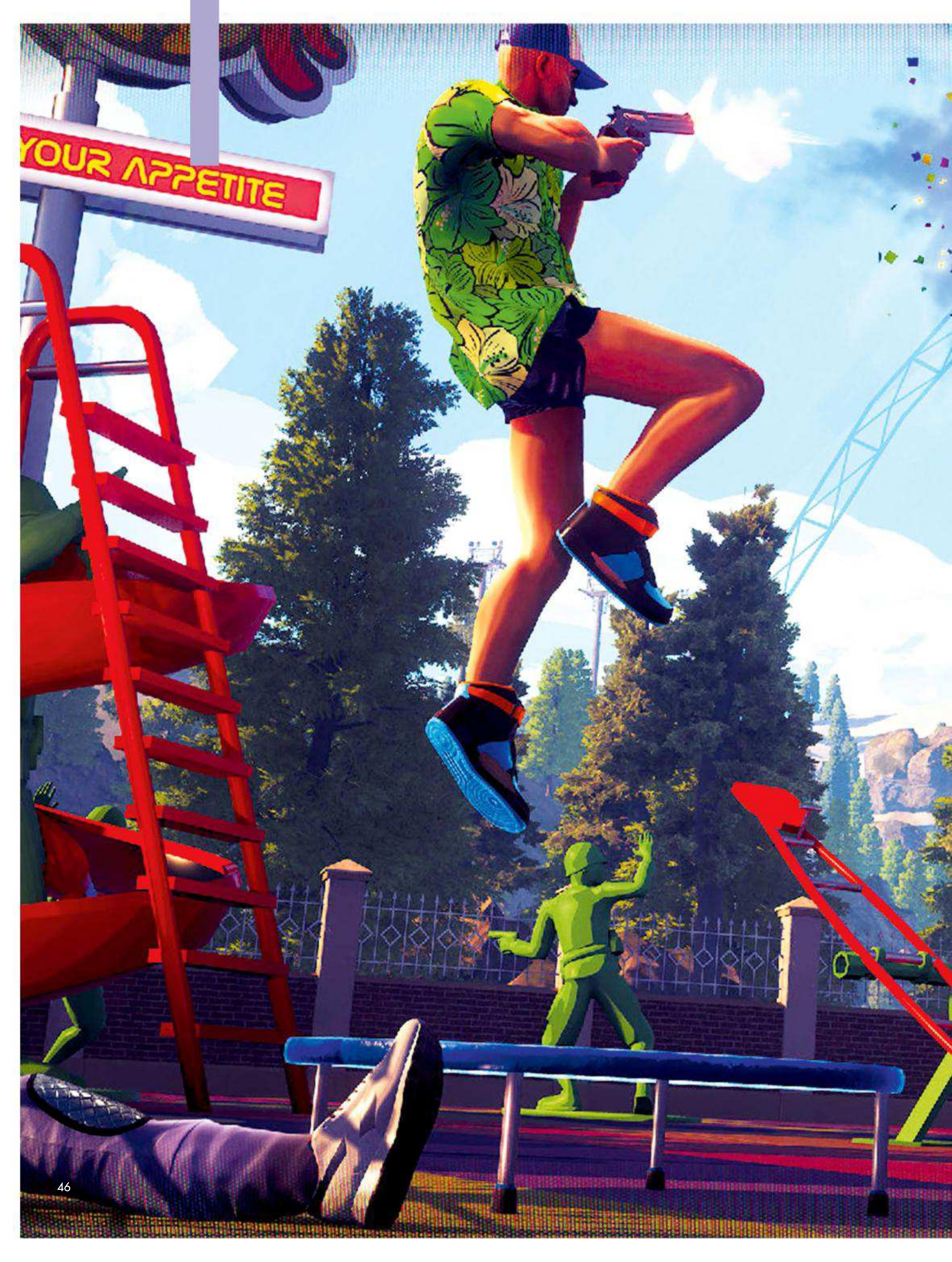
drinks to keep your cover. Traits are an idea that Hecker considered a long time ago but rejected for adding too much complexity to the game. "But in the meantime, *Dota* and *League Of Legends* hit, and I was like, 'There's absolutely no such thing as too complicated'."

Hecker wants to add more besides, of course: new missions and maps, and perhaps some player requests from a 300-page thread on *SpyParty*'s forum. But you wonder how he can face a decade working on a single game. "I don't get bored with interesting things, no matter how long I'm on them," he says. "I wasn't tired of *Spore* but everyone else was ready to jump off a bridge. This game is a sponge for design ideas; thankfully, finally it's above water financially so now I get paid to make videogames, but there's so much to do. It's not *PUBG,* but it has this community of dedicated people who treat it as this deep, competitive game like poker or go. One player has 20,000 games played and he says he doesn't feel like he's hit a ceiling yet. I can't take credit for that. I just lucked into it." ■



Watching the watchers

Twitch was a glimmer in the eye of Justin.tv when Hecker started making *SpyParty*, but he found himself making a game that's ideal for it. "The kind of game people talk about building right now is competitive multiplayer, esport-capable, lots of spectating. That's exactly what *SpyParty* is," he says. Twitch isn't built into the game, but it features an absurdly over-engineered native spectator-and-replay system instead to scratch the same itch. Live games are viewable by other players; every one is saved on the game's server and you can scrub back and forth through their replays, viewing them from six different cameras. There's also a casting mode with splitscreen. You can even play sniper against a replay, allowing you to face off against yourself and learn where you went wrong and right.


YOUR APPETITE



HYPE

RADICAL HEIGHTS

A new battle royale heir apparent? Stranger things have happened

Developer/publisher Boss Key Productions
Format PC
Origin US
Release TBA



TOP **The lone occasion that five battle-royale players come together in the same 20-foot space, immortalised in a screenshot.**
ABOVE **The zone doesn't shrink in a circle, instead locking off certain squares at random, as though the gods are playing noughts and crosses from on high.**
LEFT **Spin To Win boards are one of several noisy gameshow elements that offer the chance to secure better loot – or more cash – by revealing your position.**
BOTTOM **As the round ends, the map's covered by a veil of darkness. One tiny circle of land remains playable**



RADICAL HEIGHTS

To view this next wave of battle-royale games as rip-offs or cash-ins on *Playerunknown's Battlegrounds* and *Fortnite* is old-fashioned thinking. This is how genres are born: first a breakthrough moment, then a succession of imitators, iterators and, hopefully innovators, such as Boss Key's free-to-play *Radical Heights*. If the industry hadn't embraced bandwagon games that slowly refined genres, we'd all still be piously playing *Wolfenstein 3D*.

Radical Heights certainly makes itself an easy target for such criticisms, admittedly. Released the day after it was announced in 'Xtreme Early Access', it's a game with greybox buildings and placeholder objects all over its world map, and in which female characters are simply listed as 'coming soon', but also one whose microtransaction model is already up and running with dozens of cosmetic items for sale. In the current climate, it's a bold way to make an entrance. But creative director **Zach Lowery** says it's simply a function of different teams working on separate development strands. "The thing that people often forget, or don't even understand about game development, is that it's not a one-lane road," he says. "Honestly, with all the different disciplines and the skillsets that we have in the building, it's essentially like a six-lane highway. So because one department may have additional resources that they can pump into making cosmetic content, that doesn't mean that the resources are being pulled from fleshing out the world or adding buildings in there."

In a way, it's only in keeping with *Radical Heights'* setting to place economy at the forefront. This is a battle royale carrying the particular magenta-and-cyan vision of the 1980s upon which modern entertainment media is fixated: California sun overhead, BMX bikes lining the suburban streets, Corey Feldman perpetually just out of shot, and a Reaganite obsession with money. Each combatant is a contestant on the eponymous game show, competing not just to survive but to win cash and prizes which are littered throughout the world map. Fighting to the death over "a year's supply of hair gel!" as the host intones – it's what Gordon Gecko would have wanted. Although that same host's voiceover teases many material prizes sympathetic to the period, in practice the prizes only translate to cash. It can be used to buy weapons and items at dispensers, and deposited into offshore accounts for use in future rounds. Unlike *PUBG* and *Fortnite*, survival in *Radical Heights* is of only equal importance to the accumulation of wealth. While that comes across fairly cynically in how it steers you towards buying cosmetic fluff, the game-show conceit is harnessed imaginatively to bring greater risk-reward deliberation to the battle-royale formula.

Example: you don't have a gun yet, and you've just spotted an enticing doorway that promises cash and items inside. But as you step into the doorway, a timer begins and the show's theme song blares out for all to hear around you. Do you stick around to see what's inside and risk being picked off, or run off to a nearby vantage point and use the sound cue as bait? Either way, it's better than everyone simply sitting in their respective bushes and waiting for the zone to close in. In fact, the regular beats of each round are all designed to pull you out of comfy camping spots, from cash drops when the player count hits 50 to spinning prize wheels at 25, then a sudden shrinking of the play zone to a brightly lit and ever-shrinking pin-prick with ten players left. Together with amplified sound cues that give player positions away far more easily than in its genre rivals and a smaller world map, these elements have a way of bringing people together. Is it worth the half-finished buildings, the rudimentary combat, and the 'coming soon' features? Not at present, but if *Radical Heights* survives the year, its game-show dynamics might yet win the attention, and applause, of a sizeable audience. ■

Survival in Radical Heights is of only equal importance to the accumulation of wealth



Alpha protocol

Going public with a build so early in development is an unorthodox strategy that risks alienating gamers used to smoother edges. But Lowery tells us it's actually a way of taking some of the guesswork out of the process. "Typical game development is 18 months to five or six years. You sit there and wonder, 'How will it be received?' And you hope, and you keep spending time on it. We were able to create a core loop pretty early. We were playtesting it within a couple of weeks of beginning development, and we knew we had something that we could start getting in people's hands pretty quickly. We really wanted to get the idea out there and make sure there was an audience for it."



It's all too easy to describe your game as Lovecraftian, but Oakmont is sincerely intended as an addition to the author's universe. Even the mysterious fish-men encountered in the demo hail from the town of Innsmouth



THE SINKING CITY

Where investigating the supernatural tests your sanity as well as your aim

Developer Frogwares
Publisher Bigben Interactive
Format PC, PS4, Xbox One
Origin Ukraine
Release 2018











TOP **Getting about by boat means there'll be plenty of rivers to navigate as well as streets. It's also possible that the water levels may change during your investigation.** ABOVE **Hell portals may mean you're going to have to dispose of whatever comes through it, though in our demo some light puzzle-solving is required to close them.** MAIN **Even with the destruction brought by this flood, lives are carrying on. And while you'll meet plenty of locals during your investigation who can offer quests, this isolated city doesn't necessarily take kindly to outsiders**

TOP **The flood has also brought with it nightmarish creatures. They can be subdued the old-fashioned way, but too many direct encounters may also have an effect on your sanity.** RIGHT **Oakmont is made up of seven districts, though how many are intact or submerged is another matter**





THE SINKING CITY


Waël Amr, CEO of Frogwares

Until now, Frogwares has been best known for its long-running *Sherlock Holmes* adventure series, which has yielded eight mainline entries since 2000. *The Sinking City* marks a clean break for the studio, taking it from Arthur Conan Doyle's figure of rational deduction to HP Lovecraft's supernatural universe.

It's not the first time the studio has dipped its toes into the author's Cthulhu Mythos, which featured in *Sherlock Holmes: The Awakened*, but Frogwares CEO **Waël Amr** explains the freedom granted by fully embracing the supernatural. "In *Sherlock*, you have to remain rational," he tells us. "You can read the mysteries as irrational, but in the end it must be rational. Setting ourselves in Lovecraft's universe allows us to bring the world of insanity, an absence of rationality, and things that can't be explained – or, even better, things that have to be explained by players themselves."

Frogwares' new-found freedom takes it from the linear streets of Victorian London to the fictional open-world city of Oakmont, Massachusetts, for what is comfortably the studio's most ambitious game to date. It's set in the 1920s, but things are far from roaring here; indeed, Oakmont is in ruins thanks to a mysterious flood, no doubt of Eldritch origins.

Detective work is still the aim of the game, however: you're cast in the well-worn shoes of private investigator Charles Reed, a stranger in an even stranger land. Our demo begins with a woman asking us to track down her husband Harry, either for a fee or pro bono, and with a deal agreed we head off to speak to the locals to gather intel. Discovering that Harry is a fisherman who works out of a cabin on Old Church Road in Salvation Harbor, it's jotted down in our notebook, which we can then use to create a marker on our own detailed map of the city. It's slightly more involved, at least, than simply talking to the relevant NPC and heading to the next waypoint. Although Oakmont is a seamless open world, the flood means there is traversal by boat as well as on foot (or fast travel).

Upon reaching the cabin and finding a way inside thanks to a beaten-up car, we start poking around in the basement – and it's here that *The Sinking City*'s supernatural side manifests itself, though it's disappointingly through a combat sequence, a promising investigative adventure suddenly turning into *The Evil Within*. Action has never been Frogware's strongest suit, but the shooting's competent enough as Reed empties a few clips into spindly creatures appearing from dimensional rifts. And Amr believes it's essential to the game's broader themes. "When you make a purely intellectual game, at points, you have a different set of emotions other than the investigation," he says. "Having your character threatened by monsters or obstacles is a good way to express those emotions. Having combat as a side mechanic on top of the investigation makes sense."

Encounters with monsters will also affect the player's sanity – a promising callback to GameCube curio *Eternal Darkness: Sanity's Requiem* – although Amr is tight-lipped on just how *The Sinking City*'s equivalent will work. He does, however, suggest that had we not panicked and reached straight for the shotgun, a stealthier approach could have been taken. What happens on the show floor stays on the show floor, but in the final game we'll need to take more care. "Managing your sanity is actually a requirement, otherwise your experience is going to be more and more painful," he says.

> ***"Setting ourselves in Lovecraft's universe allows us to bring the world of insanity"***

Piecing together more clues eventually leads us to a fishery, though it turns out our eagerness to please has led us into an ambush. In hindsight, paying more attention to a certain line of dialogue would have revealed an inconsistency with other clues, which would then have exposed the whole quest as a ruse set up by Harry and his wife. It's but a glimpse of the twists we can expect from investigating Oakmont's mysteries. If using wits and deduction is still the best approach – that is, after all, what Frogwares has specialised in all these years – then all we really have to fear is where this tale of Lovecraftian horror will take us. ■



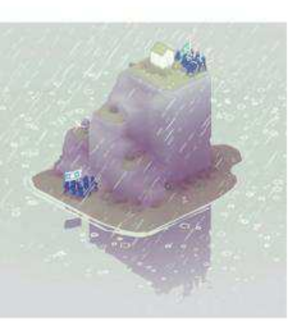
Urban planning

Creating dense cities with visual variety requires a lot of time and resources. But being a relatively small studio, Frogwares has created a city generator that allows Unreal Engine 4 to do most of the work. After designing hundreds of assets with its own unique architectural styles, a city grid allows the designers to set algorithms for how each district is populated, from rich houses to industrial districts. With the press of a button, a whole city is procedurally generated in hours instead of months, while designers can go in and apply modifications and give areas a more personal touch afterwards. It's been an invaluable tool for the studio, and may, in future, be for others too: Frogwares plans to publicly release it once *The Sinking City* is on shelves.

Developer
Plausible Concept
Publisher Raw Fury
Format Android, iOS, PC, PS4, Switch, Xbox One
Origin Sweden, UK
Release Summer







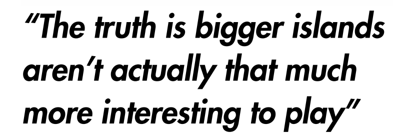
BAD NORTH

This tiny Viking strategy game is small, but perfectly formed

Fittingly, Plausible Concept has started small, both in terms of its team and its game. There are just three people making *Bad North*, a refreshingly minimalist realtime strategy game that puts you in charge of a series of small, randomly generated islands. By directing your tiny troops, you must stave off invading Vikings – but the real battles are fought in your head, as you constantly assess your surroundings and make swift decisions based on visual clues..

***Bad North*'s miniature**, pastel-hued locales invite prodding, and poking, and gawping. We quickly abandon physical buttons to use the more intuitive touch controls, spinning our first island like a perfectly iced cake on a decorating stand. We pinch to zoom in and inspect the lay of the land – a wide slope to the east leading up to buildings; a narrower, twistier path to the south. "People keep on asking about bigger islands, and the truth is bigger islands aren't actually that much more interesting to play," programmer and designer **Richard Meredith** says. "But by changing the island features – we have some with caves where enemies can go into them and pop out the other side – keeping track of that Swiss cheese island is a whole new challenge."

At first, it's all very quaint. We zoom out to scan for Viking ships, spot one and wheel around, tapping to trot our platoon of archers onto higher ground. Our diminutive sharpshooters fire tiny arrows. Then, suddenly, the enemy is at shore – and we've neglected to move our infantry into position to cut them off. The Vikings begin to climb the slope, with our footsoldiers lagging behind. It's an inauspicious start, followed shortly by a bloodbath, burning buildings and the loss of almost all our archers. Another scan of the horizon: two boats approach from the south. It's a scramble to hustle our infantry over to defend the cliff path in time.

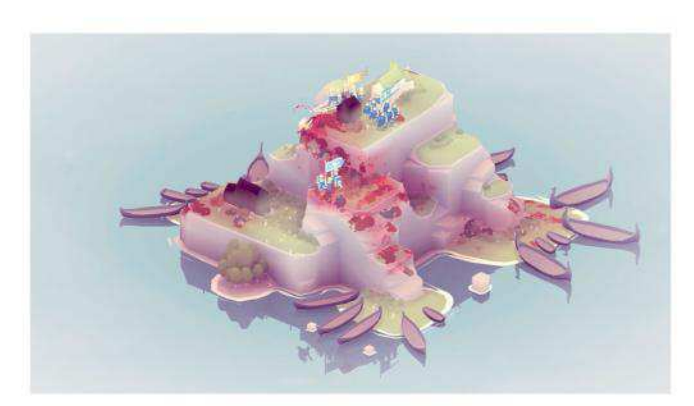


A later island introduces a third class of warrior: the pikes, who cannot attack while moving, and require us to think a few steps ahead to use them effectively. Their spears pin attacking forces in place while what's left of our archers bombard them with a hail of arrows – all too soon, however, the final wave of the island kills our captains and ends the run. We immediately hit restart. "We're kind of lucky with *Bad North* that most of the time, people quite enjoy losing," Meredith says. "The game is fun, and charming, and happens quickly, so it doesn't feel like a huge grind."

But when we ask how many more warrior classes there are beyond the infantry, archers



The dainty little islands often end up bloodied and ravaged at the end of a hard-fought battle against multiple waves of Vikings









TOP **Troop leaders can be upgraded. One unlock lets you jump off cliffs for a heavy melee attack from above, which also doubles as a handy mobility option.** MAIN **Duck your troop leader into a building, and you can slowly recover your losses. But beware: you're locked into the action, and if the building is burned, your troops burn inside it**

and pikes, Meredith surprises us. "There are only those three," he says, showing us a minimal upgrade tree that allows for variations: swapping out basic bows for longbows or short bows, and unlockable special abilities for squad captains. "There's a lot of synergy to that," Meredith says. "It's very dependent on the level layouts, and what enemy types you're facing. You have the same troop types, and you can vary and upgrade them a bit – but it's the world that changes, and how you use those different combinations to deal with different threats."

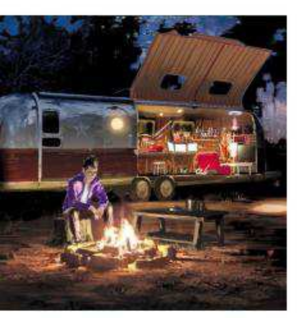
Is it difficult to be a minimalist, we wonder, in an era where players expect more and more *stuff*? "Yes and no," Meredith says, noting that the design process is simple, but that explaining *Bad North*'s worth isn't. "Normally, if you want to communicate why things are replayable, you give lists: 'This is how many different types of X we have!' That's now shorthand for mechanical replayability. That doesn't actually end up being that engaging, but it works from a PR standpoint. I think that's where the challenge comes: it's very hard to convince people that something with less in is giving them a good experience." Consider us convinced: in an ocean of oversaturated strategy titles, *Bad North* is a beautifully distilled drop. ■

Level ground

The toughest levels that *Bad North*'s algorithms can throw up aren't necessarily always the ones with oodles of winding caverns. "If we have levels that are completely flat, they're some of the hardest, most complicated levels," Meredith says. "When we first put in flat levels, it took me quite a while, even knowing the game well, to cope with them." Enemy units can reach yours faster, there's less cover, and choke points are non-existent. "From a development point, there's a lot less work involved than adding whole new units – but it is genuinely more interesting, and intuitive," he explains. "If we add new units, you have to learn how they work. If we change up how the islands are, there's nothing for us to teach you: you know how it works but you've never considered how it works in this context, so you can play it and learn."

Developer Grasshopper Manufacture
Publisher Marvelous Entertainment
Format Switch
Origin Japan
Release 2018





TRAVIS STRIKES AGAIN: NO MORE HEROES

The bad-attitude assassin returns for an all-in-one arcade rampage

Travis Touchdown has lost touch with reality. So what else is new? Suda51's beam-saber-wielding antihero has always seen life as a game, slicing his way up the ranks of the United Assassins Association in *No More Heroes* to become the number one assassin. In Grasshopper's follow-up, he walked away from the crown: now, in spin-off title *Travis Strikes Again: No More Heroes*, he's sucked into another competition.

That's not just fancy phrasing – he really is sucked into it. Seven years after the events of *No More Heroes 2*, Touchdown has entered middle-aged ennui, bored of the UAA, and has moved out to the sticks to play videogames in peace. That is, until Badman shows up with a bone to pick regarding the death of his daughter. Somehow, the two are pulled into Touchdown's prototype console, the Death Drive MK-II, to race through its many virtual worlds for a prize: a single wish granted.

For those who played Grasshopper's most recent title, this unreleased prototype console's name might ring a bell. "Later, the Death Drive 128 console appears in the world of *Let It Die*, but the Death Drive MK-II became somewhat of an urban legend," director **Goichi Suda** says. "When I was thinking about Travis going into the world of this console, I thought, 'Well, the DD MK-II probably had six launch titles.' Those will be the six games he journeys through." *Travis Strikes Again* is a mash-up of several different genres – racer, shoot-'em-up, puzzler and so on. We spend time hammering through a top-down, hack-and-slash level with a co-op partner as Badman. A retro neon heads-up display flanks the action; a pit stop at a ramen stand provides a boost to health; saving progress is performed as it always has been in the *No More Heroes* universe – by seating Touchdown on the porcelain throne.

> ***The two are sucked into Travis Touchdown's game console to race through virtual worlds***



Humanoid glitches are fought with light and heavy attacks. Hold down the left bumper, and each face button triggers an ability. For Touchdown, a magnetic vortex draws enemies to one spot, damaging them too; combining this with our partner's spin-attack ability sets up large groups of them for a big combo. But the flow of working our way down the virtual street is frequently interrupted by the camera sticking to our straggling partner, or a wall caused by a missed enemy hiding off-screen.

This small slice of *Travis Strikes Again* is basic – arguably overly so. There's a distinct taste of spin-off, rather than the full-fat flavour of a main series entry. But as a light-hearted aside, seasoned liberally with Grasshopper's inventive design and meta wisecracks, it works. And simplicity is perhaps the key to co-op play. The mode is a series first, suggested by lead programmer Tohru Hironaka as a way to utilise Switch's pick-up-and-play feature set. "I had thought about using two separate Joy-Cons for multiplayer, but having each person use only one Joy-Con and putting that button limitation on them was interesting," Suda says. "It's also attractive that you can play with two players right out of the box."

Indeed, Switch seems to be the perfect place for this game about a rule-breaking console. "When Nintendo showed off the Switch to us, I instinctively felt that now was the time to bring Travis back," Suda says. "I think it's built in a way that any guy out there just won't be able to resist it. You can attach things to it, take it apart, you can play a game with just one Joy-Con, or dock it if you want. It's like a robot that transforms. Nintendo always puts out punk consoles, and that's why I love them." Whether attitude will be enough to sell players on Touchdown's latest – and seemingly lightest – spree remains to be seen. But its spirit is well-suited to Switch couch play. Of all the consoles for Touchdown to get trapped in, this is the right one. ■



Independent spirit

Suda is collaborating with several devs to include homages to indie games in *Travis Strikes Again* (Touchdown is sporting a *Hyper Light Drifter* shirt in our demo). He's previously drawn comparisons with Grasshopper Manufacture and indie devs. So what does "indie" mean to him in 2018? "It's people just creating whatever they want, without any interference," he tells us. "I think Grasshopper's adapted a similar style over the years. Several of the publishers we've worked with over the years have been rather lenient with their control, so we've been able to do what we want. The game industry has matured, but game culture has only just started to grow. We've gone from an era in which only pros could create games, to an era in which basically anyone can. I think this will push videogames to become a central core of entertainment."

TOP **The first stage of Electro Triple Star's boss fight is a duel. The second has us slog away at generators.**
ABOVE **The Death Drive MK-II was inspired by mythic arcade title *Polybius*; how Touchdown got hold of it, we're not entirely sure**

TOP **Suda's desire to use a variety of game types was inspired by Liverpool pop-culture artist Boneface. "He first designed the characters four years ago, and I always wanted to put them into a game," Suda says.**
ABOVE **The Joy-Cons recharge your powers when shaken. It's less intuitive than it sounds, our demo failing to mention that you must click in the thumbstick to do so.**
RIGHT **Unlike previous titles, there's no enemy-targeting system, which can make it difficult to aim strikes**





ASTROLOGASTER

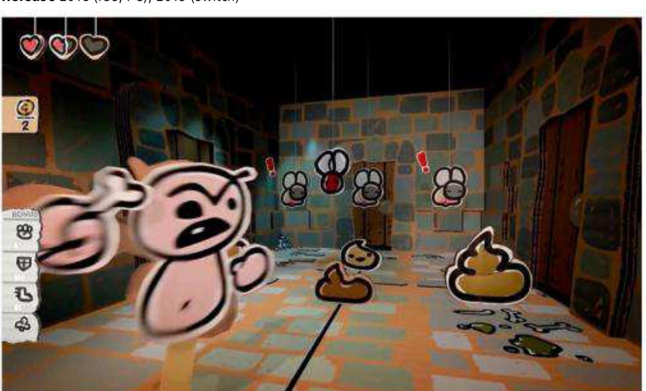
Developer/publisher Nyamyam **Format** iOS, PC **Origin** UK **Release** Winter



The maker of serene, but sadly limited, papercraft adventure *Tengami* is back, and this time there's a distinct change in tone. *Astrologaster* is positively silly: you play as real-life 16th century hack Simon Forman, attempting to solve a range of Elizabethan problems – a nasty disease, a terror plot, unrequited love, a missing spoon – by consulting astrological charts. The twist is that you're trying to foster relationships to build up your reputation and clientele (and stick it to those stuffy 'real' doctors), meaning it's often tempting to butter people up rather than make predictions they don't want to hear.

THE LEGEND OF BUM-BO

Developer James Id, Edmund McMillen **Publisher** The Label **Format** iOS, PC, Switch **Origin** US **Release** 2018 (iOS, PC), 2019 (Switch)



Finally, we get our first real look at the *Super Meat Boy* and *The Binding Of Isaac* creator's turn-based puzzle RPG, and it's a vision in cardboard and marker pen. Using his magical bag of rubbish, *Isaac* alumnus Bum-bo casts match-four spells to make his way through randomly generated dungeons (and occasionally summons his mother's foot to stomp enemies). Ridiculon returns to soundtrack this prequel: *Isaac* fans are no doubt flexing their thumbs in anticipation.

DU LAC & FEY: DANCE OF DEATH

Developer/publisher Salix Games
Format PC **Origin** UK **Release** 2018



You are Lancelot Du Lac and Morgana Fey, pulled from Arthurian legend into Victorian London to sniff out the truth behind the Ripper murders. Yes, sniff – Fey has been cursed into canine form, and switching between multiple characters expands your investigative skillset in some novel ways.

STATE OF MIND

Developer/publisher Daedalic Entertainment
Format PC, PS4, Xbox One **Origin** Germany **Release** 2018



A clichéd, amnesia-fuelled opening drags – but when our hero's virtual wife calls following a spat with his *real* one, things get intriguing. Set in Berlin 2048, this futuristic thriller tells the transhumanist horror story of a 'mind-upload' gone awry, and Richard's attempts to reunite his family and himself.

STORMDIVERS

Developer/publisher Housemarque
Format TBA **Origin** Finland **Release** TBA



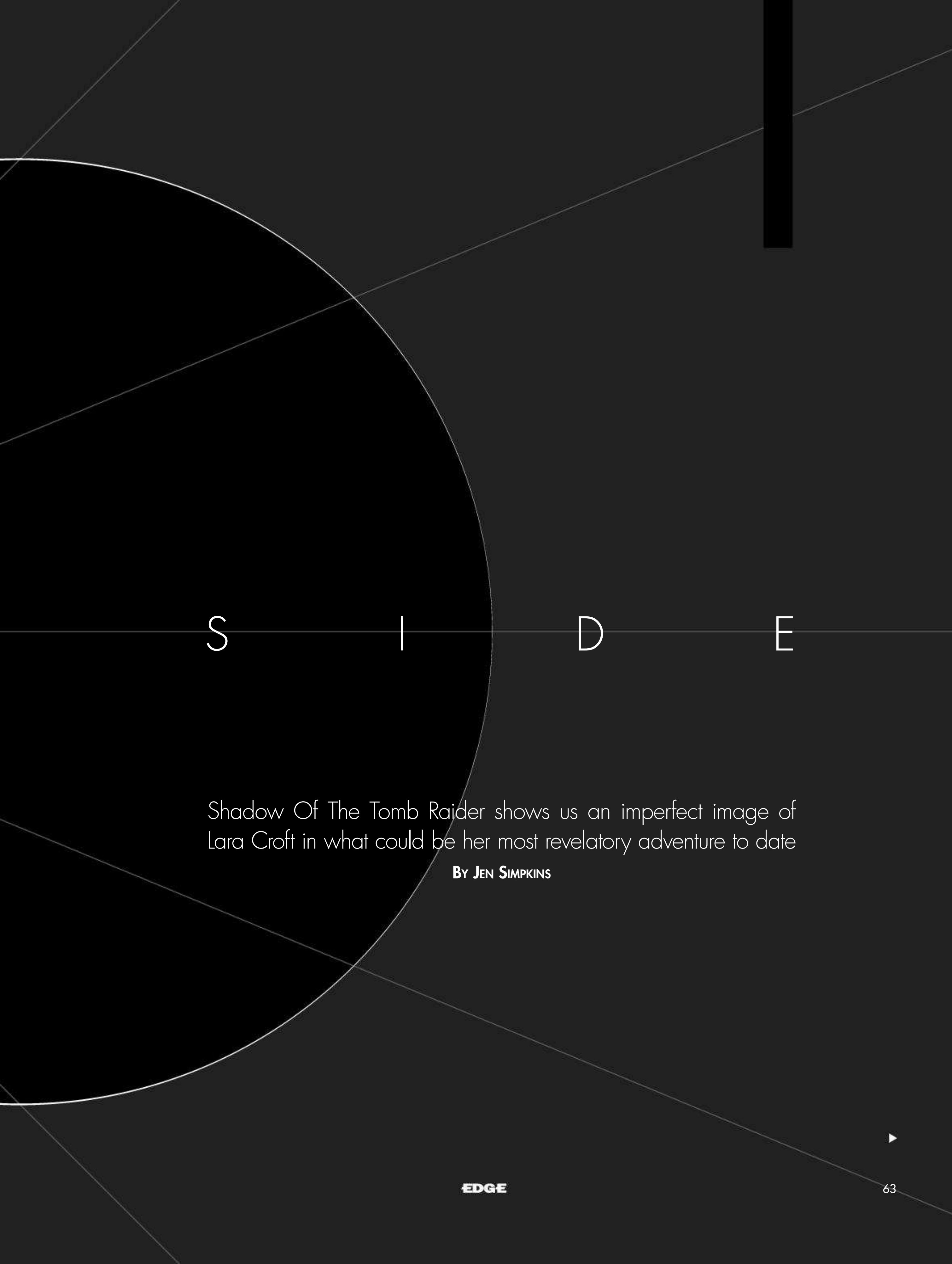
You can't make a statement like 'Arcade is dead' without something new in reserve. That something is *Stormdivers*, a "high-flying, heavy-hitting multiplayer-centric experience" that Housemarque has been crafting for two years. If it isn't battle royale with jetpacks, we'll eat our level-three helmets.

#320

VIDEOGAME CULTURE, DEVELOPMENT, PEOPLE AND TECHNOLOGY




D A R K



S I D E

Shadow Of The Tomb Raider shows us an imperfect image of Lara Croft in what could be her most revelatory adventure to date

By Jen Simpkins

Lara Croft is in a very different place. Not that you'd know it at first – at a glance, *Shadow Of The Tomb Raider* is business as usual for the reboot series. There is climbing, as Croft leaps over gaps and traverses rock faces using pickaxes. Survival mechanics return, with a bow in the place of twin pistols. And, naturally, there are tombs: huge, echoing, fanged with traps and stuffed with treasures. It is strange to think that tomb raiding, the very thing that defines Croft, was relegated to an optional series of puzzle chambers in 2015's *Rise Of The Tomb Raider*. In the very first hour of this game, we are forced to fight through one of the most terrifying iterations in the series' long history. In *Shadow*, there is no escaping the tombs – and, by extension, there is no escaping Croft.

Much has been made of Crystal Dynamics and Eidos Montréal's continued insistence that each of the reboot games marks the moment in which Lara Croft honestly, truly, for-real-this-time-you-guys, finally becomes the hardened hero we've always known. This time, in *Shadow Of The Tomb Raider*, we're inclined to believe it. The tone and atmosphere belie something far more sophisticated below a very familiar surface: a real understanding of the parallels between these deep, dark structures and Croft's troubled inner self.

THE TONE AND ATMOSPHERE BELIE SOMETHING FAR MORE SOPHISTICATED BELOW A VERY FAMILIAR SURFACE

Location was at the forefront of the team's minds: *Shadow* needed to be set in a place that would not just test Croft, but mirror her as her own worst enemy. "We were like, 'Where would that be? What type of environment will showcase the right context for this type of Lara?" senior game director **Daniel Chayer-Bisson** says. "We did a lot of research about that. And at the time, we really felt the jungle was *too* right." The idea was discarded immediately, before the idea of the wilds of South America inevitably reemerged, its implications of mysterious and deadly depths invoking a kind of recognition and nostalgia in the team.

"It felt right because we knew that we wanted to bring her as close as possible to being the Tomb Raider she's supposed to become, the Tomb Raider we know," Chayer-Bisson says. "Even her clothing now – the tank top, and things like that – it's purposefully made like that. She's closer to the classical Lara than she was in 2013's *Tomb Raider* or *Rise*. And one of the key things ▶



Game *Shadow Of The Tomb Raider*
Publisher Square Enix
Developer Crystal Dynamics, Eidos Montréal
Format PC, PS4
Release September 14

that we started talking about was, 'This has to be about tomb raiding more than anything else', and this theme of really going into a dark place. Because Lara, she's in a dark place in this game."

By contrast, the starting hub area in Cozumel is ablaze with light. The village is celebrating the Day Of The Dead, offerings of flowers and bread piled high beside flickering candles and photographs of lost loved ones. The scene is one of breathtaking visual fidelity and decadent contrast: tiny lights woven into the trees twinkle against an inky sky, while citizens celebrate and grieve. Soft music and Spanish voices fill the air – but Lara Croft is as silent and sleek as a jungle cat, pushing her way through the crowd, keeping her hooded head low. She moves with intent and control as we slip into the shadows of a grand fountain, our gaze fixed on the man several steps ahead. He is an agent of Trinity, the paramilitary organisation bound up in the death of Croft's father, and is on the hunt for a particular relic – an ornate dagger.

So, as it happens, is Croft. But while she seeks it hoping to learn more about the strange circumstances surrounding her father's demise, Trinity is after the dagger for its mysterious power. But most intriguing is the fact that *Shadow Of The Tomb Raider* sees these two

> "TOMB RAIDING, WE UNDERSTAND THAT – BUT WHAT IS GOOD TOMB RAIDING, AND WHAT IS BAD TOMB RAIDING?"

warring motivations for exactly what they are: identical in their selfishness. "The ultimate question was, 'What is the *bad* tomb raiding?' Chayer-Bisson says. "Tomb raiding, we understand that – but what is good tomb raiding, and what is bad tomb raiding? And that was very interesting to us. Bad tomb raiding is about *possessing* things – taking things and not thinking about what knowledge these things carry. *Good* tomb raiding is about the knowledge of these things. And that, at a certain point, became the cornerstone of what we wanted to do. We said, 'We're going to teach her what being the Tomb Raider really means, emotionally and psychologically – but also intellectually.'"

Crystal and Eidos are keen to demonstrate the benefits of Croft's experiences surviving on the brutal island of Yamatai, and in the frozen Siberian wilds. And, as we weave our way towards Trinity's goons and the tomb they're guarding, we notice the changes in Croft – the ripple of defined muscle in the moonlight, a suggestion of scars across her face, her new propensity to sink into thick foliage on the walls for cover. Our first kill, too, is a far cry from the clumsy struggle and agonised retching of the 2013 game's formative scene: we creep up behind a nonchalant soldier and dispatch him in one fluid movement, before immediately moving onto our next target.

The canonically inexplicable, but nonetheless useful, Survival Instinct vision returns, too, a yellow highlight appearing around the now-isolated second guard communicating that we can go in for the kill undetected. Boxes wink brightly around the derelict, damp ruins surrounding the Mayan tomb. Salvage inside can be crafted into ammo and precious bandages. It's a skill carried over from 2013's *Tomb Raider* and *Rise*, where we learned to earn every arrow as a nascent, frightened Croft struggling to survive. Now, the returning ability is handily recontextualised: if Croft didn't know how to whip up a makeshift bandage by now, we'd be seriously worried.

Unsurprisingly for a *Tomb Raider* game, a good amount of climbing follows. Croft is clearly more capable than she's ever been, as evidenced by subtle changes to her animations. She shimmies across a rope, shot from our bow and stretched taut over a treacherous drop, with speed and ease, assured in her movements. A new rappelling mechanic is even more revelatory, Croft inching herself down into nothingness and using her own bodyweight to run across vertical cliff-faces, or swing onto a faraway ledge. In a way, it's almost a trust exercise she's entered into with herself – a sign of a more introspective Croft. "For us, going down like this, it's really about descending into these dark places," Chayer-Bisson says. "Whatever it is – the caverns, the rappelling, the underwater sections – it's a metaphor of getting inside of herself, and discovering all this lost treasure that is there."

Shadow's mysterious caverns are based on a system of real-world South American subterranean tunnels, which remain largely unknown. Still, as we enter the tomb, a shiver of recognition runs through us. Slanted shafts of light break through a crumbling ceiling and wet, greenish stone bathes everything in an eerie, submarine glow. It may be significantly more detailed, but here is the classic *Tomb Raider* setting of old: strange, crumbling statues cast in jagged shadow, ominous echoes in half-collapsed hallways, huge doors to be heaved open. And once Croft's rope arrow helps us do so, there is more nostalgia: a spike trap that demands some swift button-mashing to avoid a traditionally gruesome impalement, and, afterwards, a fallen-in floor revealing a shimmering pool.

For those who grew up swimming Croft through the original PlayStation games, unconsciously holding their breath as she dove deep into claustrophobic corridors, such a sight is both exciting and horrifying. While *Rise* allowed for brief dips below the surface, *Shadow* marks the first time in the reboot series that Croft can swim ▶



ABOVE This slice of Cozumel is a taste of what later, larger hubs will offer. It's lit beautifully, but Croft's skull facepaint provides ample disguise. **LEFT** The bow is back as this Croft's weapon of choice. "We couldn't bring back the twin pistols because that's not part of what this Lara is right now," Chayer-Bisson says



The returning Survival Instincts vision shows isolated foes that can be killed without consequence. It's still a little too useful, but can be turned off entirely



properly and explore a full 360 degrees underwater. "The closer we get to the end of the origin story, the more it's important for us to bring a little bit more nostalgia to it. The jungle, the jaguars, the rappel and underwater sequences are all things that exist in the old games – these are the things that people feel *should* be there, that we bring back," Chayer-Bisson says. For this series in particular, nostalgia is often bound up with fear, and *Shadow* is an attempt to recapture and reintensify the fear that the tombs of old inspire. Croft is more capable than ever, and the tradeoff is that the environments – the jungle, the tombs – are far more dangerous.

Well, perhaps not. An underwater attack on the part of some shudder-inducing moray eels requires nothing more than a bit of frantic button-mashing to fend off. But it certainly *feels* as though Croft is under more pressure than ever, a sense that is compounded by a nightmarish struggle to escape to the surface through an ever-narrowing rocky crevice. Again, it's another quicktime event – but some truly chilling audio work induces real panic as Croft squeezes and scrabbles through, her ribcage seemingly ready to crack at a moment's notice. "It was always important for us from 2013's *Tomb Raider* onwards that we were exploring the phobias, the fear, because it's inherent to survival," Chayer-Bisson says. "Surviving is not just you being

PIPE LINE

There are an astounding number of ways in which Lara Croft is brutally punished in our demo, from nearly drowning, to being speared by spike traps, to being impaled through the throat by a pipe, still alive and gasping for air as she claws at her neck. Chayer-Bisson explains that they were a design choice for *Shadow*. "The checkpoints are not far away from when you die, so having these gruesome deaths make you feel bad to fail, and do everything to stay alive," he says. It sounds like the pipe incident, however, was a bit of a sore point. "I said, 'To not break the immersion, I would like to not see Lara dead on screen, just falling or dying'. So when the spike came here," – he gestures to his throat – I was like 'What the hell?' Shit like that, I was like, 'Oh my God, what happened?'"

SHADOW OF THE TOMB RAIDER IS AN ATTEMPT TO RECAPTURE AND REINTENSIFY THE FEAR THAT THE TOMBS OF OLD INSPIRE

punished physically, but also emotionally. Fear is not really part of how gruesome or how graphically you die, but it's much more about the anticipation. It's like Jaws. The magic of Jaws was not the actual gruesome physical death, it's the anticipation," he notes, humming the iconic theme.

The rappelling down into chasms, the bubbles that tease a way out of a watery prison, the howls of jungle animals, the spikes adorning almost every puzzle element we interact with: all are specifically designed to mess with the player's mind. Indeed, the main cavern is an intimidating prospect – a dark, dripping maw daring us to fail our jumps between large bells which boom and echo troublingly under Croft's weight. "This will be, I would say, the most difficult *Tomb Raider* of all the *Tomb Raiders*," Chayer-Bisson says. "That is important because this is a more experienced Lara. This is going to be bigger, it's going to be harder, and that tomb shows the first ever puzzle you'll solve and it's very difficult." Our ▶

ABOVE Chayer-Bisson, who worked on the 'first kill' scene in 2013's *Tomb Raider*, says its crucial to have "defining moments" for Croft. One such in *Shadow* had voice actor Camilla Luddington "hating the director; he was pushing her to a place that was beyond what was comfortable." **LEFT** Our demo is set in the caves of Mexican island Cozumel. Later clues lead you to Peru and the Brazilian rainforest



experience with winching up carts to break through barriers, weighing down certain bells to raise up others, isn't too taxing. We do, however, have some trouble reading certain environmental clues in the gloom of it all, leading to a few fatal plummets before we spot the tell-tale texture of a pickaxe and grapple-friendly overhang before the final chamber.

Inside lies the dagger we're seeking – and, apparently, the last vestiges of Croft's self-control, as she snatches it up, despite a short interaction with some stone carvings on our way into the caves making it perfectly clear that taking the relic is off-limits. This is, without a shadow of a doubt, bad tomb raiding. "It's more than selfish," lead writer **Jill Murray** says. "We find her at the height of her power. She hasn't necessarily learned the extent to which she can use that power, and depending on your perspective, a hero could also be a threat. In this game, she'll have to decide which she's going to be. She might only realise she has to do that after making some pretty big mistakes." As mistakes go, triggering the Mayan apocalypse is a significant one, and Croft will have to deal with the consequences of her actions.

The trouble is that the immediate ramifications aren't exactly mind-blowing. After exiting the tomb, we're immediately thrown into a firefight against a few waves of Trinity soldiers, which proves wearying both conceptually and practically. It's well-placed cover, machine guns and red barrels as far as the eye can see, with a dash of Molotov cocktail thrown in for flavour. It's difficult to use the finely tuned, yet relatively slow, bow in the more frantic situations, especially because some of the enemy hitboxes are somewhat suspect – a real shame, as switching to a shotgun doesn't feel quite correct for this version of Croft.

There is one noticeable improvement over *Rise*'s combat: if you've made too much of a ruckus, you can return to stealth simply by hiding out of sight for long enough, giving you a chance to heal and then re-engage in an alternative manner. Or, at least, try to – our attempts to switch things up end in failure until we resolve ourselves to crouching behind a wall with an AK-47, popping up occasionally to fire bursts of bullets. Fortunately, it sounds as though shootouts will be less of a focus in *Shadow*. "We used to have way more combat in the previous two games because it was our new thing that we were bringing to the franchise, that more free-form combat," Chayer-Bisson says. "Now, we've made a better balance between combat, traversal and tomb raiding."

There is an awareness, then, that thirdperson cover shooting and a crafting system do not exactly qualify as new and exciting features in 2018. On the contrary, for this newest of *Tomb Raider* games, what is *old* is exciting – not pretty corridors full of mandatory Hollywood action, but the ancient labyrinthine structures of the classic titles, in which puzzles slowly unspool, charting your path like Theseus' thread through the Minotaur's maze. "*Tomb Raider*'s structure means we have more linear, experiential levels that open up into a hub," Chayer-Bisson says. "Then it comes back into something that is much more driven as a narrative experience – and then goes back to a hub. We have a very similar structure, exploded but very similar, and the only thing I can say is that our exploration hub is way bigger than anything we've ever done in the *Tomb Raider* reboot franchise."

This hidden city will provide an opportunity for Croft to engage in a bit more of that 'good tomb raiding' we're after: speaking with locals and learning valuable information about the environment she finds herself in, as we saw briefly back in the Day Of The Dead scene in Cozumel. "That's kind of a sample of the kind of social interaction you can expect," narrative director **Jason Dozois** says. "And also more exploration. I think the big thing we have in our favour other than the linear, powerful narrative storytelling is when you get to hub spaces. Being able to open that up and learn more from the people, finding relics and exploring the very rich environments to get a more in-depth knowledge of the people and the places you're travelling to."

IF CROFT AS A VULNERABLE YOUNG GIRL WAS STRIKING, SEEING HER ON THE EDGE OF VILLAINY IS SHOCKING

In an age where multiplayer games are able to remain consistently fresh and relevant with constant updates and player-generated anecdotes, it seems as though the reserve of the singleplayer game is to forge a stronger, more personal connection with its themes and characters. Often, it's about taking a story we thought we already knew and plunging deeper into its darkness to highlight something else altogether. It was once enough for Lara Croft to be a collection of alluring polygons in a pair of hotpants; later, as people started to think differently about the portrayal of women in media, her role was redefined as an example of female empowerment. In the rebooted series, Crystal and Eidos have broken things down further. If Croft as a vulnerable young girl was striking, seeing this long-time hero on the edge of villainy is downright shocking. An apocalyptic flood caused by the theft of the dagger might nearly drown Croft (and, thanks to some more strange hitboxes, impale her on plenty of sharp plumbing) but it washed away the Cozumel town and its residents almost entirely – including, most devastatingly of all, a young boy. ▶

PASSION PROJECT

As an exploration of Lara Croft's inner turmoil, *Shadow* must be a deeply personal thing to work on. Indeed, both Murray and Chayer-Bisson see parallels between Croft's dangerous monomania and their own work. "A lot of us relate to her stubbornness, her obsessiveness, her relentlessness," Murray laughs. "We're all game developers: we work a lot and love what we do. There's an obvious connection there." Chayer-Bisson agrees: "It was always about obsession. We are obsessed about what we're doing: we can lose focus and perspective, and especially when it happens with your life and your family. This is a story about how sometimes your passion can destroy you, and how it's better to stop and get perspective before doing the thing you think is right."





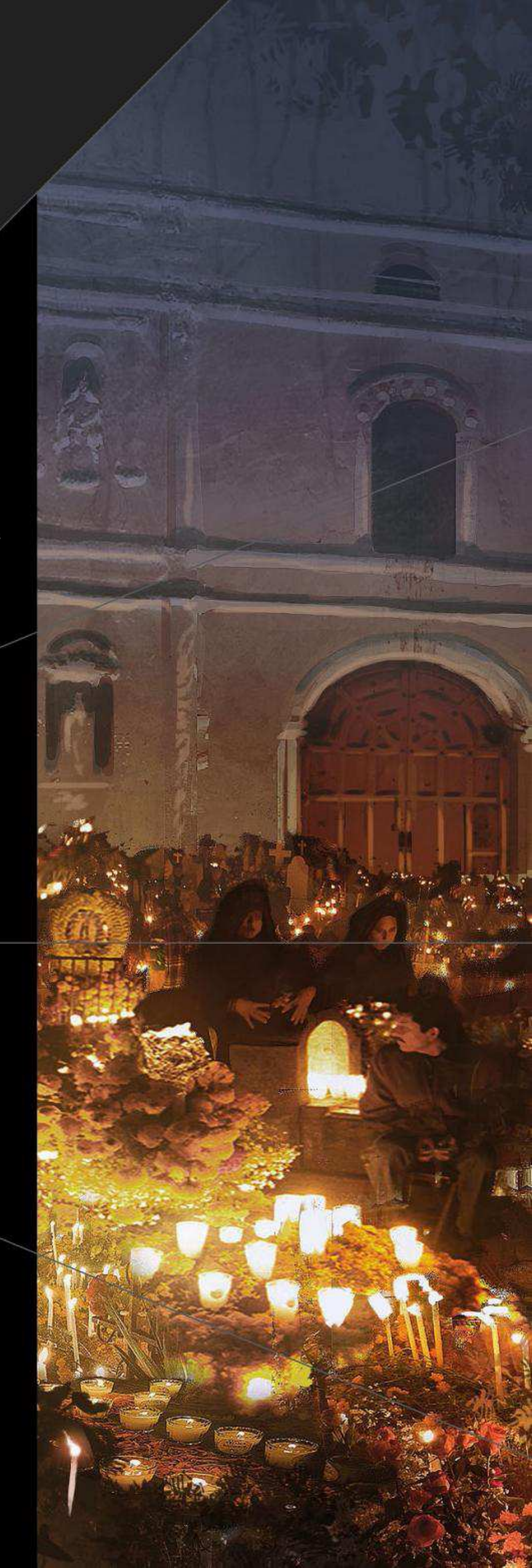
The flood scene is the waterslide from hell; we're swept down hazardous branching paths. Athletic she may be, but here Croft handles like a sack of waterlogged potatoes ▶

It must be a challenge to tarnish such a venerable reputation, we suggest. "A little bit," Murray admits. "But it's kind of a gift to be working on something that you know people are looking forward to, and that so many people have put a lot of work into establishing such a solid bedrock for. We're able to say, 'Okay, what has everybody already taken care of?', and go deeper into things they maybe didn't get to. We get to see Lara in conflict with herself. We also have an antagonist who could be a protagonist in his own story – his motivations are just as compelling as hers. It's going to give players a lot to think about, and question her motives as much as she does, perhaps. I think that's something that we can provide in this kind of game that is much harder to access in a multiplayer game."

It's a compelling idea: that the multiplayer sandbox playgrounds of today are fuelled by extroversion, while singleplayer stories such as *Shadow* look ever inward – into the darker and more treacherous emotional territory underneath familiar ground – for their revelations. It's about upsetting 25 years of player expectations in a way that is "surprising, but inevitable," Dozois says. "I'll say this. You've played the first part of the game. You took an artefact and basically caused the Mayan apocalypse. *That's act one.* The accumulation of that is not only external, seen in the world – the stakes go all the way down. There's conflict on all those three levels: the external, the interpersonal and the internal. The combination of that, mechanical and otherwise, that's going to be the surprise and the inevitable outcome."

"IT'S KIND OF A GIFT TO BE WORKING ON SOMETHING THAT YOU KNOW PEOPLE ARE LOOKING FORWARD TO"

Shadow Of The Tomb Raider is a game that's as preoccupied with exploring Croft's psyche as it is its tombs, with its twisting subterranean caverns and terrifying descents into the self. The prospect of it is intimidating – not least for Crystal and Eidos, who are in the curious position of having to neatly align the reboot games with the very beginning of the series, while also introducing enough that's new to push at a few well-entrenched boundaries. So far, however, *Shadow* looks like a promising chiaroscuro of a story: with the focus firmly back on the connection between our hero and the tombs, and what exactly it is that will be discovered inside, this latest and darkest tale might well cast Lara Croft in an illuminating new light. ■





"In *Shadow Of the Tomb Raider,* with Lara, heroism isn't a one-shot deal," Murray says. "It's about sticking with something to the end, no matter how dark it gets in the middle"



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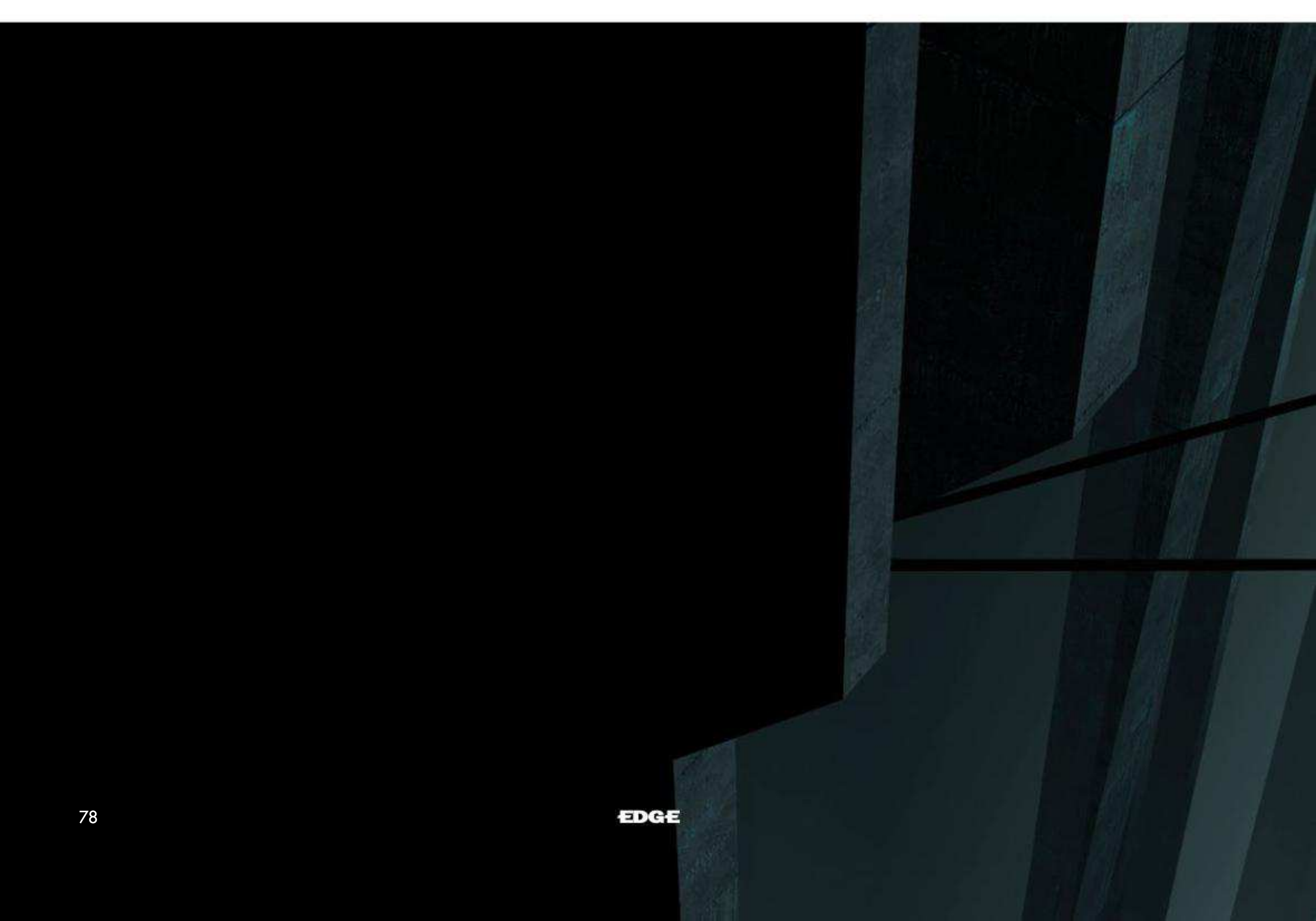
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S H A R E D



S P A C E

Why don't games and architecture work more closely together?

By Alex Wiltshire



When videogames are compared to another creative medium, it's usually film. They're both intrinsically visual, and both are driven by stories. What are games and films without strong characters, conflict and high stakes? But as popular as the comparison is, it's only skin-deep. What is a film when its audience can play as its performers, its director and its cinematographer? What is a film when it's non-linear, scribed by its viewers' passage through space rather than the time they spend watching it?

When you think about games, you think about space. You think about moving through levels, whether 3D or 2D, navigating the challenges posed by carefully placed geometry. You think about the sense of place that being in a videogame level can conjure, magicking you into cities and rooms, forests and plains through the 16:9 rectangle of your TV. You think about the wordless ways in which games' environments tell you what you need to do, the ways they're built for specific purposes, whether shooting galleries, social lounges or puzzle rooms. Thus, if it wasn't already clear, videogames' closest creative cousin is not cinema, but architecture.



ABOVE **London Development Toolkit is a playable critique of the city's luxury housing market. Draw a tower and the game creates a tower block, but the only real creative power is getting to edit ads.** BELOW **The Playable Planning Notice is a project by students of Youandpea; it allows players to use the language of planning notices to generate structures**

ARCHITECTURE AND VIDEOGAMES USE SIMILAR SOFTWARE: SQUINT AND YOU'D BE HARD-PRESSED TO TELL THE DIFFERENCE BETWEEN AUTOCAD AND UNREAL ENGINE 4

The similarities between the two don't stop with their form. "Architecture is the closest medium to videogames because they're a blend of mathematics and art and design, experience and theory in a way that film doesn't necessarily deal with," says **Greg Kythreotis**, a former student at The Bartlett, UCL's school of architecture, and now developer at a new London-based studio called ShedWorks. "There's a lot of overlap." They use similar software: squint and you'd be hard-pressed to tell the difference between AutoCAD and Unreal Engine 4. "The ways of manipulating digital objects in space would be totally familiar for designers moving between the disciplines," says **Kieran Long**, an architecture critic and director of the Swedish Centre for Architecture and Design in Stockholm.

And game developers and architects think in similar ways. They design things with purposes, creating systems and spaces that perform certain functions and aiming to



Tokyo Backup City is a conceptual city design which translates the intricate workings of medal games found in Japanese arcades to the civic scale

guide people though them, indicating how they should be used. They also want these spaces to elicit emotional responses. Before you think that architects only concern themselves with designing physical things realised in bricks and mortar, architecture isn't always intended to be built; it's often about sparking, exploring and selling ideas.

Today, the two forms are moving even closer together as digital technologies are becoming interwoven with architecture and the built environment. Through the field of responsive architecture, buildings are increasingly using technology to respond to their occupants, automatically managing heating and lighting. It's currently a rather mundane realisation of them, but it reflects a series of ideas that emerged in speculative projects during the 1960s such as Cedric Price's Fun Palace, a building designed for leisure which would constantly reconfigure itself to serve visitors' needs. In many ways, Fun Palace is a giant, physicalised game, and so games' inherent nature has been part of architectural canon for many years.

And yet there's very little interplay of ideas between architecture and videogames. Architects rarely look to games for inspiration, and game developers rarely look to architects for inspiration, beyond pretty backdrops. "Architecture is not as open as it should be to interdisciplinary thinking in the digital age, and engagement of games with other parts of culture is pretty shallow," says Long. The two fields run in parallel, despite their closeness.

"It's pretty much unprecedented in architectural education to use games as a primary medium for exploring urban or architectural ideas," says **Sandra Youkhana**, one half of Youandpea, a London-based architectural studio which is working to do just that. "There's very little interest in what videogames are at the moment," Kythreotis agrees. "They're definitely seen as a lower-brow medium than film. I teach students at the Bartlett how to use tools like Unity and do crits in Masters units, and they're interested in the ideas and the theory and concept, but ▶







FROM TOP **Sandra Youkhana and Luke Caspar Pearson of London architecture studio Youandpea. Kieran Long is director of the Swedish Centre for Architecture and Design**





TOP **Andy Nealen, creator of *Osmos*.** ABOVE **Dan Walters has developed several games and studied architecture at university**

their understanding of the medium is minimal, next to zero."

But why? For **Andy Nealen**, designer of physics puzzle game *Osmos*, co-director of the NYU Tandon Game Innovation Lab, and holder of a degree in architecture and structural engineering, it's largely about architecture's monolithic nature. "An architect has the potential to be dismissive of the transience of videogames because their form is not," he says. "Their form is permanent, and it has this whole idea of sustainability; buildings literally have to stand the test of time. That's much harder to do than make games. Everything has gravitas when it's part of the built world around us." As someone who moved from architecture to videogames, he found the change in stakes very liberating.

On the game side, while level designers and artists try to recreate architecture in their attempt to make you feel you're exploring credible environments, they're not engaging with these structures in the same way that architects do. They don't have to take into account the materials they're made of, the sites they're standing on, the regulations they're beholden to, the uses they're there to serve. "My gut feeling has always been that game developers are winging it because real architecture is boring, right?" says Nealen. "Sure, the top ten architecture of 2005 will have some amazing design, but everyone else is working on houses. Even the people working on the super-cool stuff, they pretend to be sculptors but for the most part they're under very hard physical and functional constraints." The concerns of a level designer or artist are very different to those of an architect.

But there are some crossovers between the two fields which point towards ways in which they can feed each other with ideas. A common one is trained architects who become developers, like **Dan Walters**. Despite sticking through the full seven years of his architecture degree at Cardiff and Cambridge, his heart was always in games; he made *Half-Life* mods during his teens. But he was expected to take up a more traditional profession and found



Concept art for *Peregrin*, a story-driven puzzle game for iOS and PC in which players explore ruins and use the ability to control creatures to solve their mysteries

himself applying to study architecture at university. (Also, he says, "My mods were pretty terrible".) He continued programming in his spare time and ended up leaving architecture when he successfully applied for a grant from Google to work on an open-source project. In 2011 that project became his first published game, *Terrorhedron*, a 3D tower defence with a ten-player co-op mode.

Each of Walters' games occupies a different genre and is visually striking, running from stealth-platformer *Calvino Noir* to physics-powered vehicle-building sandbox *Stormworks* to story-puzzle game *Peregrin*. It's tempting to think that this stylistic breadth is the result of his years of being immersed in architecture, but Walters resists that interpretation. "I enjoy exploring new stuff, finding new visual places, building new mechanics and doing new stuff," he says. "I was very aware when I started out that I needed to jump out, and that was six years ago when it was easy. It was about having our own identity."



ABOVE ***Calvino Noir*, Dan Walters' beautiful-looking stealth platformer for iOS and PC, features three playable characters, in 1930s-inspired architecture.** BELOW ***Stormworks: Build And Rescue* is a physics-based sandbox game in which players create vehicles to mount dangerous rescues, or just to mess around**

"YOU HAVE TO BREAK ARCHITECTURE DOWN INTO PARTS, AND IT'S VERY SIMILAR TO WHAT YOU DO IN GAMES, WHERE NO ONE DESIGNS A WHOLE GAME IN THEIR HEAD"

Instead the benefits of his architectural training and experience working at London practice De Matos Ryan are more practical, giving him ways of understanding how to improve a design, knowing what to change and why. "It's an abstract creative process, about how you decide to translate the brief and the constraints, context and the occupants," he says. "You have to break architecture down into parts, and it's very similar to what you do in games, where no one designs a whole game in their head. But you'll start with a few concepts and mechanics and you'll get them in place and see how they relate to and work with each other. And the great thing about games is that you can walk through the half-designed building as if it's complete." And even more practically, Walters says the most useful year in his training was the final one in which he learned contract law, how to set up a business and how to set up legal agreements with clients. This directly transferred to setting up his own studio and working with contractors. ▶

For Greg Kythreotis, who is making *Sable*, a game about driving on a hoverbike across a desert that looks like the work of comic artist Morpheus come to life, the conceptual similarities between architecture and games are more evident. "There's a permeability between the two, or at least you feel there should be," he says. "When I was studying architecture, the buildings I designed were never going to be real, but there's a perception that there's such a big jump between architecture and videogames; they're not really that different."

At the Bartlett he gravitated to a unit (the name the school gives to focused study groups run by tutors) run by Luke Pearson, who is the other half of studio Youandpea. "I knew he was doing a PhD on Los Santos, and I said to him that I didn't want to be an architect, I wanted to make videogames, and he ended up being my tutor." Kythreotis describes himself as a game developer, but he sits somewhere between the two fields. He's interested in the ways architecture is experienced, about people's habitual interactions with spaces which games model so well. He thinks about the way you run through *Persona 5*'s Tokyo or *Dark Souls*' Lordran, getting to know their layouts and what each area is useful for, and how they can make you feel.



ABOVE **ShedWorks' installation for an exhibition about perspective explores the nature of the camera in visual representations of architecture.** BELOW **Not much is known about ShedWorks' *Sable*, other than being about speeding across deserts. Its look was inspired by the works of artist Morpheus**

ONE FPS SEES PLAYERS CREATE AN LA CITYSCAPE BY SHOOTING VEGETATION, CONCRETE AND INVESTMENT ONTO THE LAND AS A WAY OF EXPRESSING THE KEY FORCES THAT HAVE SHAPED THE REAL CITY

He's also been working on an installation for an exhibition at the Royal Institute of British Architects called Disappear Here. Curated by architect Sam Jacob, the exhibition is about how perspective has been used in architectural drawing from the Renaissance to the present day. Kythreotis's piece flies through 3D algorithmically generated architectural structures and is a commentary on how perspective, which is central to how architecture is imagined and visualised, is an illusion, representing 3D space on a 2D sheet of paper. Videogames use precisely the same illusion, tricking you to believe that what you're seeing on your flatscreen TV is 3D. "The installation is trying to make an architectural drawing that unfolds in realtime," says Jacob. "It's embedded in the logic of videogames, where you set up a camera and how that structures the space. It's trying to draw a relationship between

the Renaissance idea of perspective as a drawing system to photographic cameras and now virtual cameras. The logic of perspective is something that invades many aspects of the way we represent and imagine the world."

Representation of architecture through the technology and design of games is exactly the focus of Luke Pearson and Sandra Youkhana's Youandpea. "We're running a studio that's specifically focusing on using games in architectural design," Pearson says. "We're interested in how a game might be different as a representational medium for architecture. There's a long history of architects making drawings, models or even films to explore their ideas, but games offer something different. That is where these links that aren't established yet between architecture and games will start to solidify." Built in Unity, their projects are entirely conceptual, harkening back to the world of Cedric Price and the group Archigram, designed with students and for exhibitions. But importantly, they aren't simply visual; they embrace game design.

PURIST INTENTIONS

Architectural drawing uses many of the same forms of representation as games, such as the isometric projections that are used in *SimCity* and *Monument Valley*, which you might be surprised to learn is a hit in architectural circles. "A lot of designers seem to love *Monument Valley*," says Claire Hosking. "It has a really sophisticated aesthetic and it's about thinking about how space goes together." Sam Jacob agrees. "Almost all of architecture today is produced digitally, from conceptual drawings to plans to the photorealistic renders used to sell designs to clients and the public. A key transition between the world of architecture and videogames is a game like *Monument Valley* which has this isometric view and that airbrushy, pastelly thing, which is exactly the aesthetic of so much architectural drawing by younger architects and students."



Youandpea's Architecture (After Games) installation was made for the V&A Museum to reflect the way game worlds distort architectural space

"In some projects we pick out systems in cities, like surveillance," says Youkhana. "We've done projects for London, New York and LA, making games in response to them to not only educate players about things they might not be aware that exist in their cities, but also to create engaging works that speak to audiences beyond static drawings that they might not be able to read." The London Developer's Toolkit, for example, is a satire of the "burgeoning skyline of phallic residential developments across London" which asks the player to draw a 'napkin sketch' of a building which the game then generates into 3D, the player then realising their actual input into the design is minimal and the role is instead relegated to creating glossy adverts for their building to attract investors. Another project involves players in city planning, showing how the mechanics of the planning system make the original idea become crazier and crazier. Another is an FPS in which players create an LA cityscape by shooting vegetation, concrete and investment onto the land as a way of expressing the key forces that have shaped the real city.



Greg Kythreotis studied architecture at The Bartlett in London



Robert Yang is a game developer and assistant arts professor at NYU Game Center, with a special interest in level design

"Actually being able to play these things puts architecture into a really interesting conversation with the person engaging with them," Pearson says. "Games could potentially be part of a new wave of representing architecture, and might allow a rejuvenation of the thinking of Archigram and other similar 1960s groups which was utopic, about making systems and playful cities that arrange to desires and needs."

But what happens if architects come into the game world, rather than games coming into the architectural world? In the case of *The Witness*, Jon Blow's firstperson puzzle game, it led to a richer and more credible place to play. The architect involved was Deanna Van Buren, who was then working for Perkins + Will, a large firm with offices all over the US, and she worked alongside Blow's team at Thekla and a team of landscape architects. She told the architecture website Archinect that Blow wanted a practising architect to be involved because he felt they'd introduce new ideas that would help raise the game to a new artistic level. She created a master plan for the island the game is set on before going into detail on figuring out the forms and of the structures you find scattered across it, which reference many different periods, styles and building materials. She gave *The Witness* buildings that are proportionally correct and with structural detailing that makes them feel grounded and credible.

Writer, game maker and architecture graduate **Claire Hosking** says that games would do well to fill this role more often. "If someone is making a point-and-click game and trying to get their environments to seem outer space-like, an architect might have advice about what kinds of spatial organisation seem futuristic or surreal. If a narrative designer was writing about characters in 1900s terrace housing, a heritage architect could help them understand how people used those houses differently to the people who live in them today."

But architects can do more for games, because they also know how to design places that have intrinsic value. "Space can be an end in itself and not just a tool to move the player around," she argues. "A really good sequence of spaces doesn't need 'gameplay' to activate it, a really

"I THINK WHEN I FIRST STARTED THE PROJECT, I SAID, 'WELL, I DON'T DESIGN VIDEOGAMES, I'M A REAL ARCHITECT'. BUT AS WE STARTED TO WORK TOGETHER I REALISED IT'S REALLY NOT THAT DIFFERENT"



ABOVE ***The Witness*' island setting incorporates puzzle solving into its very fabric, with plenty of perspective tricks and alignment challenges dotting the world.** BELOW **Its environments carefully reflect the materials from which structure is made. Van Buren also did a lot of sketching and 3D model-making during the design**

interesting world can be enjoyed passively too." Great architects use arrangements of walls, ceilings and floors in tandem with the materials they're created from to affect our experience of a space, and while good level designers think about it too, it's an immensely complex concept, enough to fill architects' seven years of continuous education. Bringing architects into the development process can help expand the potential for place-making that's apparent in *The Witness* and break out from the arbitrary way in which many levels come together. "I think there's a downside in how levels are designed in greybox and primitives that have no specific materiality," says Hosking.

Such collaborations aren't easy, however. Van Buren nearly turned down the chance to work on *The Witness* because she knew it was a full-time role and she feared her employers would never want to work on a videogame. And once she was working there, she found it a challenge to understand the nature of gameplay and how it would affect the game's environment design. "I think when I first started the project, I said, 'Well, I don't design videogames, I'm a real architect'," she told Archinect. "But as we started to work together I realised it's really not that different."



Deanna Van Buren working on *The Witness* with game director Jon Blow (left). One of her objectives was to situate the ruins of three civilisations into the world

IT'S ABOUT ETHICS

Since it comes with a great deal of public responsibility, architecture is highly formalised, founded on years of study and a code of ethics which helps architects consider the ramifications of working on certain projects (would you help build Trump's wall?) or in certain ways (would you build with asbestos somewhere it's not yet outlawed?). Videogames could learn from it, argues NYU game academic Robert Yang. "This kind of moral discourse is basically absent from game design, where we imagine ethics is unnecessary or irrelevant to the 'art and business of making games', but you can't keep ignoring responsibility forever. Have you noticed how fast western society has turned against Facebook, Google and tech? If the industry fails to consider norms and values, it's just going to lose more trust. Loot-box scandals are just the beginning of a possible moral reckoning. If the public can't trust the bridge you built, then it's not going to cross it."

These forays between fields are showing that there's rich potential in letting ideas drift across the gap. But why not go further? "It surprises me that no big game company has asked Frank Gehry to make a level," says Kieran Long. "You know, just like big Hollywood stars are wheeled out for a voiceover. Imagine if Santiago Calatrava did a *Call Of Duty* level. I would buy it!" And perhaps it's just a matter of time. "Frank Gehry is 89 years old," says Hosking. "He was 33 when *Spacewar!* was designed in 1962. I think most architects at the height of their careers at the moment are older than game devs typically are, and lack any expertise or even familiarity with game design. I think the younger, up-and-coming generation of architects has a lot more crossover experience with creating both virtual and real space. I also think if you taught Gehry a bit about platformer design he could do a rad *Psychonauts 2* level." ■


LAYSTATION



AN AUDIENCE WITH...

BRENDAN GREENE

The creator of Playerunknown's Battlegrounds on his influence and blissful ignorance

By Jen Simpkins

What a year it's been for Brendan Greene, aka Playerunknown, the man and modder behind *Playerunknown's Battlegrounds*. An Early Access release last March saw the battle royale title – originally a mod for survival shooter *DayZ*, itself a popular mod of *Arma 2* – become an instant smash hit, selling over 26 million copies and smashing Steam's record with an astonishing 3.14 million concurrent users. A full release in December pushed its sales to over 40 million, and *PUBG* seemed nigh-on untouchable.

But Greene's big idea had set a chain reaction in motion. Suddenly, everyone was out to grab a slice of the *PUBG* pie – not least flagging survival title *Fortnite*, which turned around a battle-royale mode in record time and has somewhat gazumped *PUBG* of late. The genre that Greene's game defined is now a phenomenon, with some of the biggest publishers in the world rumoured to be gearing up for battle-royale announcements for their games at this year's E3. Almost exactly one year on from *PUBG*'s early access release, we caught up with Greene at EGX Rezzed to discuss the complex emotions of seeing your own mod be modded, how to stay true to a vision by rejecting influence, and how on earth you follow up a worldwide phenomenon.

It's been quite the year for you. Are you still getting over it?
It still hasn't really sunk in, because it's been so mad. I've seen pretty much every city in the world at this stage. It's been crazy, having to do the press thing, and getting to go to conventions, and meet so many different fans. It's been wonderful, I've really enjoyed it.

Doing "the press thing" – are you used to that yet?
Yeah, I'm getting used to being a public figure. It's a little strange: I have half a million followers on Twitter, which is insane. I never thought I'd ever reach this level of fame, I guess, but I try to keep my feet on the ground.

The extent of it must be surreal, but you did have a sense that *PUBG* was going to be big, right?
Well, no. I mean, when I was first interviewed by Bluehole to join the company as creative director, they asked me, "How many copies do you think we'll sell?" And I had confidence in my own game, and I was thinking a million, month one. I'd seen streamers like Lirik and Break really enjoy the *Arma 3* mod, so I knew there was something there. And with the success of *H1Z1*, I knew if I put this game mode into a game that people could easily play, instead of having to mod it onto a game, I thought it would be popular.

So I was a little arrogant saying a million month one – but we did a million in 16 days, I think, which was insane to me. Now we've got 40 million plus across all platforms. Which is, just, the numbers are too big, you know?

It's become quite personal, really, because your name is on the game – not many developers do that. How conscious a decision was that?
Originally, it was Playerunknown's Battle Royale in *Arma 3*, and I called it Playerunknown's Battle Royale simply just to skirt any copyright problems. Even though the Battle Royale movie was an influence, the game mode wasn't at all like what was in the movie. But I put Playerunknown's Battle Royale just because it would get around the copyright thing. And it's the same with *Battlegrounds* – I liked the name, because we wanted to create these worlds that we have battles in, right? Because there are a few other uses of it out there, like *Hearthstone*'s Battlegrounds, it just alleviates any copyright restrictions so we could trademark the name *Playerunknown's Battlegrounds*. And it's given us *PUBG*, so it's a wonderful moniker.

Do you ever regret putting your name on it?
No. I mean, I get a lot of wonderful feedback, and a lot of feedback that's not so nice – but it comes with the job, you know? I think it doesn't matter what we called it, the feedback would have been the same. I don't mind [the recognition]. I love going to conventions, I love meeting fans. I meet people who are quite literally shaking when they come up to me. And it's like, I'm only me, I don't bite. But it means so much to them.

You've been a software engineer, a DJ, a photographer, a modder, and now you're a rock star. But do you feel like a game developer yet?
As a *hardcore* developer, no, I am not a game developer. As a creative director, I feel I've slotted into that role quite well. I feel I understand how to work with teams, and how to deliver and enact a vision. So yeah, I feel like I am a game developer now. I'm not a programmer by any means, and I can't really get my hands that dirty. I've worked a lot over the past year, and I still don't think I'm up there with the best creative directors out there, but I definitely feel like I am now sort of part of the industry.

Do you have any people you look up to in terms of your career?
Well, this is the problem! I was never a big gamer: I played games occasionally. I was a photographer and a DJ, so that's what I kind of did. At weekends I was DJing, or doing gigs, or whatever, so I didn't get a lot of time to play games. I never really paid attention to the industry. ▶

I met Tim Schafer at PAX East with Danny O'Dwyer. And Danny was like, "Tim! How are you? Lovely to meet you," and I was walking away going, "Who the hell is Tim Schafer?" Danny was like, "You know, *Monkey Island*." And I was like, "Ah! I remember that." And I met Tim again at the BAFTAs, and I told him this, and he was like, "Oh my God, I hate you!" So yeah, I never really knew any people in the industry. I don't know if I have heroes, or idols.

Do you think that lack of knowledge and expectation has benefitted you in any way?
I think so. I mean, definitely from an engine point of view. I don't know the tech intimately, and that allows me to dream a little bigger. With game design, it's the same – I'm not burdened by the rules of game design that many other people have learnt, and as a result, *Battlegrounds* was born out of that. The battle royale game mode was born out of my lack of game design – and it being a tough game. I think our win percentage is something like 20 per cent. With most games, it has to be 60 per cent: that's the give, and that's what you should be doing. No, I want to punish players, make them feel sad, and angry, and salty. And they like it. Players like a game that's hard, they like challenge. If a game is too easy, it gets boring. And with *Battlegrounds*, because it's against other people, it's the hardest game of all.

Which part of the job do you enjoy more? The rock star part, or the dev part?
There are times that I wish I could just put my head down, and work closer to the team. But it's important that I do the press stuff: it is my name on the game, so I have to do the tour. And that's okay. I don't mind the travelling – I don't get to see much, apart from the inside of conventions, which all kind of blur into one. There are times I wish I had more time to spend with the team, because I love working with them, I love sitting down and talking about things. But it's a credit to the team that I don't need to do that all that often. Those early days, we really hammered out what we want to do, and what we want for the game. Now they can handle everything, and I'm so proud of that.

Has it affected you and your life more than you anticipated it would?
I was not ready for it. I thought a million month one, but then I thought *maybe* we would sell five million copies. As I said, we passed 20 million, then 40 million, and it's still selling. I did a keynote at SXSW, I spoke at GDC, I opened PAX – I never expected this. And I still feel a little like, when I'm telling my story, 'Why do people want to listen to this?' To me, it's not that interesting – but people want to hear it.

I've had a lot of time to reflect, and if you look at the top four [multiplayer] games in the last 10 to 15 years – like *Counter-Strike*, *Dota*, *DayZ*, *Battlegrounds* – they all came from mods. These were not triple-A companies coming up with an idea for a game: this was a modder going, "This is a game I want to play," and other people enjoying it. And I think it's a testament to the fact that modding is a really interesting way to get into game development, and to try your ideas, because you never know what might happen.

You've set off a chain reaction within the industry.
This is it. There was a massive explosion of MOBAs way back when MOBAs first started, and we're seeing the same now. There's probably 20 new battle royales coming out this year. I just hope that there are interesting spins. You know, Cliff Bleszinski just had *Radical Heights* come out and that looks like a barrel of fun, an '80s-themed battle royale with silly things and BMX tricks and stuff – it looks fun, right? And that's what I like to see.

You're a modder whose mod is being modded. People are kind of eating your lunch. How complicated are the emotions behind that?
When it comes to new battle royales coming out, and mods of mods, and spinoffs of spinoffs – I *want* new and interesting battle royales to come out. It's not that they have to break the mould, but that they expand the genre, and really try to improve or change the game mode. I think if it's just all carbon copies down the line, it just gets boring, you know? I want this genre to grow. I encourage everyone that's reading this to look into the Arma modding community, because it's *insane* the amount of content that's there, and the support they give you.

For me, it was that I wanted to make a game that I wanted to play. *CS:GO* is the same: they made a game mode they wanted to play using the *Half-Life* engine. It's the same with *Dota*: [Kyle Sommer] made a game mode he wanted to play. I think that's the key difference between modding and triple-A. Triple-A is sometimes driven by feedback from various sources – whereas modding, it's me and a dream. That's what I want to do. I don't care what anyone else thinks, I'm doing this, and if it works out, fantastic. If it doesn't, well, I've lost nothing.

Do you pay much attention to other battle-royale games, or think about iterating on any of their ideas?
Not really. We have a pretty good idea of what we want from the game. We have internal teams that look at innovating a little bit more, making new game modes and stuff. We're looking at it like, "This is our realistic feel." Whereas we released emotes a while ago, and people were saying, "Oh, you're just copying *Fortnite*," – but no, we're not. We did motion capture for the emotes last year in Prague after launch. We wanted to put non-verbal communication in because some people don't have



CV

Greene made videogame mods as a hobby while working as a photographer, DJ, graphic designer and web designer. He'd seen *The Survivor GameZ*, an online contest created by Brian Hicks and Jordan Tayer: "I wanted to play the *Survivor* games, I couldn't because I wasn't a streamer." So he decided to make his own version, thinking of augmentations to the mode such as 'last man standing' rules instead of *Survivor GameZ*'s teamplay. In 2013, he created the *DayZ: Battle Royale* mode by playing around in a custom server. When *DayZ* released as a title independent from *Arma 2*, Greene moved his mod into *Arma 3*. After a spell as a consultant on *H1Z1*, Greene geared up to follow in *DayZ*'s footsteps and release *PUBG* as a standalone title – which turned the page on a newly unfolding chapter in videogame history.

"I'M NOT BURDENED BY THE RULES OF GAME DESIGN, AND AS A RESULT, BATTLEGROUNDS WAS BORN OUT OF THAT"



New map Savage is only half as big as Erangel and Miramar, but the item and weapon spawn rates have been increased, meaning pacy matches

microphones. And that was our plan – but you're always going to get these comparisons like, "Oh, you're reacting to this," but most of the stuff we come up with we think of internally. While we do look at the games and play other games, we really want to try to keep our vision of a battle-royale game pure.

Is that purity now the selling point of *PUBG*?
We get asked a lot, "What makes *your* battle royale stand out, and different?" and it's like, *nothing*! I had a good idea in *Arma 3*, and we really didn't want to change it too much, because adding useless things and gimmicks to make your game different is often not the best course of action. There's no point in throwing stuff at it just to make it different. I don't get that. But I'm sure we'll see that – I'm sure that there are marketing departments that will tell them, "No, add this, add that." But we're focused on our game, and we try to keep blinkers on as much as we can. I don't want to be too influenced by what other games are doing.

Does it help keep you sane?
Well, this is it. At SXSW, someone asked, "What are you doing to combat X?" And I said, "Why do we need to *combat* X?" This idea that, 'Your game's going to die', or 'This is going to kill your game' – I don't get that. We're all devs, we all love making games, we all have the privilege of doing this for a living. When we released, they were saying, "Oh, you're going to kill *H1*". I'm *friends* with the *H1* devs. Why would I want to kill not only something I helped create, but a game made by friends of mine? It's the same with all these other games. Why do I want them to die? Can't we all co-exist?

But a new game is announced, and some of the first comments are like, "This game will fail because of this, this and this" – it's just like, let's give games a chance. Let's not immediately want something to fail because we don't like the idea, or we think this idea's been done before. Let's see them maybe do it differently.

So what's the next different thing for *PUBG*?
This year, we want to start really investing in esports, and really try to build the global team, which we're doing – we're adding people in Santa Monica, in Amsterdam, in Korea. We're up to about 300 now across all regions, maybe a bit more. We really want to invest in setting up tools, and getting the spectator system and the platform to a state where this can be a really successful esport, or people can have the confidence that they can go, "Yes, I can use *PUBG* as a platform". That's what we really want. And it takes time. Other games have taken three years or so to be considered an esport: it doesn't happen overnight. You see it more and more where people are snapping their fingers and expecting things to be done, and it just doesn't happen like that. Especially this – no one has done battle-royale esports before. We're still trying to figure out the best format for it.

Part of what makes *PUBG* so compelling is that idea of one person against many. Why are you so passionate about it as an esport?
I love esports, I love watching *CS:GO*, but it was always two teams of five on stage, and for me, there's not enough spectacle there. I want to put 100 people into the arena, and I want the first person, or the first team [eliminated] to stand up and walk off. It's this idea of *real* spectacle, of a whole stadium cheering 100 people on. That's what my dream was way back in *DayZ* battle royale. It's very easy to watch as a spectator sport: it's just a man, or woman, with a gun.

But there is so much to keep track of.
Yeah, but look at a game of golf. There's maybe 50 people on the course, but they still manage to cover it, and it's a good spectator sport. So we want to look at doing the same thing. We have to look at spectating differently. It can't be like *CS:GO*, or *Dota*, where you're covering action all the time. But we have to look at how to spectate a battle royale *well*, and how to tell everyone's story. We're trying to learn, and figure out the best systems for making it fair for the players, but also making it fair for the viewers so they can feel involved. These things take time, but working with organisations like PGL and StarLadder has been great.



***PUBG*'s beloved melee weapon, the frying pan, has been the cause of lawsuits filed against copycat mobile titles**



Philosophically, esports seems almost counter to your punk-rock modder roots, where you'd make the game you want and not care what anyone thinks. Esports is a big, glittery, commercialised business now. So what's the attraction there?
It's just what I wanted from the very start. I wanted to create a new esport from battle royale, so that's the culmination of my dream. The esports space is still very fresh and very niche; it's for gamers only. I want to see it expand out into the mainstream, I want to see it on ESPN. We've already seen some *Dota* and stuff on ESPN, but I think a game like *Battlegrounds* is much more relatable for those who are not into gaming.

Games like *Dota*, *Overwatch*, and *Fortnite* to some extent – it's quite hard to watch them, as a non-gamer, because you're not really sure what's going on. I can't really watch a game of *Dota* without someone telling me exactly what's going on, you know? (laughs) With *PUBG*, it's infinitely more relatable because it's very easy to understand. There's a story, and it's a different story every time. It's very *watchable*. It's not that I want to break into the glittery world of esports – it's just that's the dream I've had for the battle-royale game mode.

Have your dreams changed as your life has changed?
Not really. I've always said this: all I want is to be at our first event in a stadium. And then seeing battle royale as an esport, we're starting to get there. We're not trying to rush it. We really wanted to make sure the platform was there, the tools were there. And if the community want it, it will happen. But we don't want to kind of go, "Well, we're the next new greatest esport". This is something we want to work on to make sure we get it right. Without your community, without your players, you're fucked, so you really have to make sure they're involved to deliver a great game for them.

So after you achieve that dream, what's next? You don't seem the kind of person to sit still.
Oh, no. Look, there are other games I want to *play*, right? It's not about other games I want to make, it's other games I want to play. And I want to make some things. I'm not going to share anything about other games I have ideas for, but I have other ideas. But for me, until battle royale and *Battlegrounds* is somewhat at an esports level, that's where I can look at doing something else. I have many other games I want to play – and I hope to get the chance to make them someday – but right now I want to get *Battlegrounds* kind of finished.

How do you move on after making a phenomenon? There's a bit of a cautionary tale in what the pressure did to Notch.
Well, I'm not a billionaire. (laughs) Yeah, I am *dreading* my next game, because it's *Playerunknown's Next Game*. And there's going to be eyes on it. No matter what I do, there's going to be a lot of critics going, "Well, it's no *PUBG*." And I've accepted that – I am not going to make a game that's going to get like, three million concurrent users, and tens of millions of players every month. But I'm not *aiming* to make that. I want to make a game I want to play, and if other people want to play it, that's fantastic – but ultimately, if they don't, I'll still have a game that I can play. So that's my outlook: I'm probably going to get shit on, but that's okay.

"I AM *DREADING* MY NEXT GAME, BECAUSE IT'S PLAYERUNKNOWN'S NEXT GAME. AND THERE'S GOING TO BE EYES ON IT"

Are you going to put your name on the next game you make?
I have *no* idea. I'll release it untitled. Or just call it *Playerunknown's Next Game*!

Any estimation of how long it'll be before that happens?
I have no clue yet. I want to get this done first. We're really making some good headway this year on esports. We've got some great new hires now. Our new CMO, he's ex-Riot, he helped launch *League* in Korea, so he has a lot of experience with bringing an esport to a market.

So did you know who your new CMO was before you hired him? You didn't Tim Schafer it?
I Tim Schafer it with *everyone*. Like, really, I don't know anyone in this industry, so it's a joy for me to meet these people, and get to talk to them without that sort of air of 'Oh my God!'

It's a bit like how Nintendo likes to hire designers who actually don't know that much about games.
Right? I saw that and I was like, yeah – because it *does* benefit you when you're not burdened by the knowledge of games. Even with me, because I don't play a lot of games, I don't get unduly influenced, so my vision for *PUBG* was always kind of pure. I wasn't influenced by other people. A producer friend of mine just doesn't listen to music. Just doesn't. Because he doesn't want to be unduly influenced by what is going around in the music industry. I get that. ■



THE MAKING OF...



ODE

Reflections on the art of noise and the pursuit of joy

By Chris Schilling

Format PC
Developer/publisher Ubisoft (Reflections)
Origin France, UK
Release 2017

There's a harmonious magic in *Ode*'s landscapes. Its alien worlds, peculiar yet welcoming, double as giant, organic musical instruments, with flowers, strange growths and springy fungi becoming valves, frets and keys in a spontaneous, experimental performance. As a fallen star, you barrel around, drawn to tiny spheres that trail behind you once collected, ready to be cast out and gathered back up in an instant. Almost imperceptibly, the soundtrack builds with your own momentum until it reaches a rousing crescendo, a euphoric conclusion to your orchestral manoeuvres.

Like each of its stages, *Ode* gradually developed from modest beginnings. It's a surprise, in fact, to discover that it all started with a simple piece of technology, created by one of Ubisoft Reflections' programmers. "We had this concept, which was essentially what you see now as bubbles forming and taking shapes," lead designer **Dale Scullion** tells us. "It was inherently fun and tactile to play with and so that led us to think we should try to do something with it."

It's less of a shock to learn that the studio's principal aim was to capture a feeling of joy through curious exploration. But how to express that concept? As producer **Anne Langourieux** explains, it took some time to get right. "We spent approximately a year in conception," she says – twice as long as the game was actually in production. "We wanted to solidify the pillars we identified in that initial prototype, and work on how to transcribe joy in the visual and the musical elements of the experience. All this took a lot of time. But then we knew what we had to do in production so it went quickly after that."

Capturing a feeling of joy – and focusing exclusively on doing so with every element of the game – proved to be a significant challenge, but once Reflections had established that music would play a key role, things slowly began to take shape. The process was holistic: the level design, the sounds and the visuals would each inform one another. "For every level we had an idea of the kind of emotion that we wanted to bring, and this was the foundation," Scullion says. "We could then go away and look at the type of music that would support this, and while doing that we'd look at the visuals and marry them up as we progressed."



***Ode*'s environments changed significantly throughout development. "Sharp, rocky-edged shapes created more of a visual contrast with the main character," Couvela says**

For **Romain His**, who was in charge of *Ode*'s sound and music, the length of the conceptual stage helped him tie everything together. "We developed this huge system in which music acts as a game design, animation and visual effects ingredient in itself," he says. "It's something that really brings life into the river." In other words, making the level feel like it flowed organically required plenty of methodical planning in the first instance: you mightn't associate that kind of careful organisation with the feeling of spontaneity you get from *Ode*, but it was absolutely necessary, His insists. "You have to think about what kind of signal you want to drive into each of the plants, the animations, the visual effects," he continues. "Once we had all these little links, we could complete the music in a way that would bring life to an entire level."

"WE HAD THIS CONCEPT, WHICH WAS ESSENTIALLY WHAT YOU SEE NOW AS BUBBLES TAKING SHAPES"

If emotional feelings were to be the heart of the game, Reflections knew it had to work hard on the physical side. Your spherical avatar bowls around in a way that's reminiscent of AiAi from *Super Monkey Ball* with the gathering momentum of a katamari. It feels, we suggest, almost like you're guiding a toddler: there's a strangely irresistible sense of being ever-so-slightly out of control, as if your avatar's body can't quite keep up with their brain. You can just about steer them where you want to go – indeed, it gets easier to adjust to their impetus over time – but on occasion you'll end up careering between rocks and hard places, saved only by your translucent, gelatinous shell. "Well, that's exactly the kind of feel we were going for," says a delighted Scullion. "And because you can go from what is essentially a single ball to, like, 400, we wanted to mimic that feeling of – well, I guess it's almost crowd-like? But at the same time keep a level of control in there, so that the player is never not going to be able to do anything that they want to do."

"This idea of a kind of subliminal presence of a toddler is interesting," His adds. "Because kids and toddlers came across as inspirations all the way through development." *Ode*'s abstract nature was purposely designed to allow players room for their own personal interpretations of what it all means. For His, it became the story of a toddler that had lost their marbles in the playground. Langourieux recalls a playtester who came up with a very different reading. "They told us this story of a kid who had lost his sight and was finding it gradually," she says, the sounds helping the child navigate the world.

The almost-total absence of a narrative (beyond a brief intro) was part of a desire to keep *Ode* as accessible as possible to a broad audience. If the protagonist's inertia means you might make a mistake, whether it's missing a single star piece on a high platform, or bouncing into a river and briefly losing your collection, there's very little frustration associated with such slips. This is a game with no threat, nor any punishment for failure: mess up, and you can simply try again. "We were very keen to make a game that was just pure exploration," art director **Jack Couvela** says – and that purity extended to leaving out a tutorial and in-game prompts of any kind. He pays warm tribute to level designer Liam Charlton's efforts in subtly guiding the player. "Liam put in a lot of work to make sure that the player felt a natural sense of exploration and would find their way around while being tempted towards different routes."

For Couvela's part, it was vital to find an artistic balance between a place that was at once dark and strange, yet also enticing. "We wanted a contrast between the beginning and the end of the level, but we also wanted it to

feel appealing and non-threatening," he says. *Ode*'s controls were a key factor in ensuring players never felt overwhelmed, even given the lack of any traditional guidance. "We wanted people to explore and even experiment with the controller, while the first level teases the player into understanding what the game is," Scullion adds. "So we went through a lot of prototypes and playtesting to make sure that we never lost players with any kind of complex interactions."

In the meantime, Langourieux had encouraged His to travel from his home in Paris to Newcastle for live sessions with the rest of the team. Bringing his guitar, drum machine and portable studio with him, His was kindly loaned a keyboard by another Reflections staffer, helping him to nail the mood of each stage. He would return to his hotel room each evening with directional notes on identifying tones for the world's plants and fungi, working late before bringing back the results to show everyone the following day. Such a collaborative process, he says, was hard work but creatively invigorating. "It was an experiment gone right!" he laughs, "And completely different from composing music abstractly, because you're creating a life form – feeding and populating a world. I think what was really important is that it was a very open process: there were a lot of ideas, and it was not just for me to decide, it was up to everybody."

Reflections may have had plenty of ideas to choose from, but the team's keenness to distil the game down to only its most essential elements meant that plenty were thrown out. Concepts for the game's various transformations – power-ups, after a fashion – were plentiful, but less than a handful made the final cut. None of them, Scullion admits, have an official name: a sticky, tube-like form that attaches itself onto rocky steps, flipping over itself to climb them, was known as both The Thing and The Slinky. "We tested a lot to see the kind of feeling they brought and basically reduced them to the three or four best, and we picked those based on the emotions we wanted to bring," Scullion adds. "And from there we crafted the level around them, so they were basically a big part of the foundations of the level design."

As meticulously planned as everything was, there were a few eleventh-hour changes. Joy, the feeling, may have been there from the beginning, but Joy, the protagonist, certainly wasn't. "She didn't appear until three weeks before release," Couvela concedes, and everyone laughs. "For a long time we didn't have one of the balls marked out as special; you would just become one of the pack if you were down to a single entity. Eventually we realised that it was much better for the gameplay and for the controls to know where you were pointing by having a specific one that was different." Couvela had already animated a hamster in a ball as an Easter egg of sorts, but the result was so popular that the team realised the player's avatar needed more personality. And so, eventually, Joy was born.

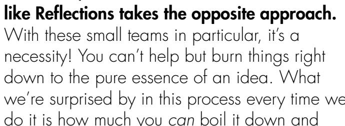
Her belated arrival came just a week after a decision was made to add a bonus level. Reflections had learned that *Ode* would be out before Christmas, and decided an extra themed stage was the ideal way to celebrate. "We felt that the game was a little gift of joy, and we wanted to extend that to be part of the holiday gift-giving season." Couvela says. With everyone else on the team already occupied, three new staffers were invited to develop the stage, which in many respects is antithetical to the approach of the rest of the game: it has collectibles, enemies and is set against the clock. "We didn't want to scare them with crazy pressure because this wasn't something that we *had* to include," he continues. "But we set them this challenge to theme a level that we could then decide whether or not we wanted to include." Happily, the risk paid off: a surprise bonus for players was a proud moment for a trio of initiates. "One month into their job at Ubisoft and they've already got a game under their belts," Couvela smiles.

If that was something of a baptism of fire for Reflections' newest`recruits, the process of making *Ode* taught even its more experienced developers a thing or two to take into their next project. "For me it was about focusing on the purity of the central idea of the game and really questioning every aspect of the design to make sure it fits," Scullion begins, before Couvela enthusiastically interjects. "Yeah, it's the hardest thing. I think that's partly why proportionately we spent a very long time in concept with this game – a lot of that was struggling with what we could and couldn't take out. For ages, we explored very different types of games and very different approaches, and all of them were a lot more complicated and layered and detailed than *Ode* ended up. But I'm very happy that we ended up with such a pure little gem."

Even so, we venture, there's surely more mileage in *Ode*: *Grow Home* eventually got a sequel in *Grow Up*, after all. "We should do an *Ode* with PJ Harvey," says Langourieux, seemingly only half-joking. "Actually, why not?" His says, suggesting that a level with a blues-rock flavour would be his preferred choice. "We're always exploring new ideas so hopefully we'll have things to announce," Langourieux teases. Finding the right one might take time, but if *Ode* is anything to go by, the results will be joyous indeed. ■

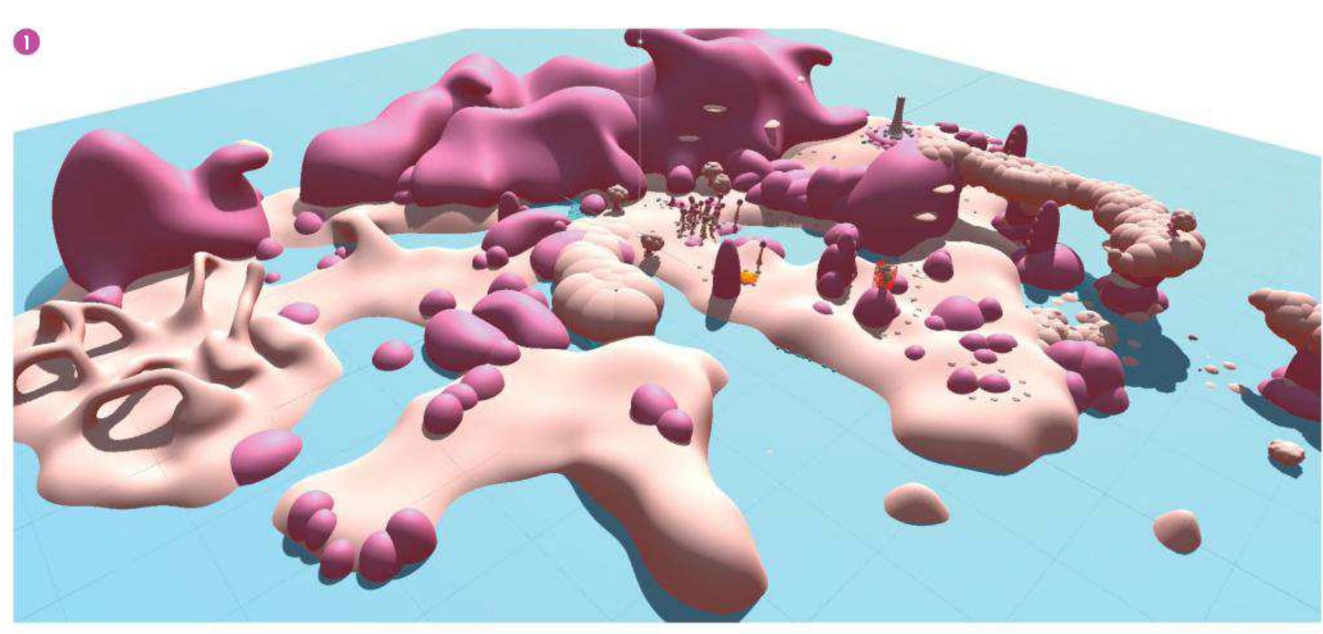


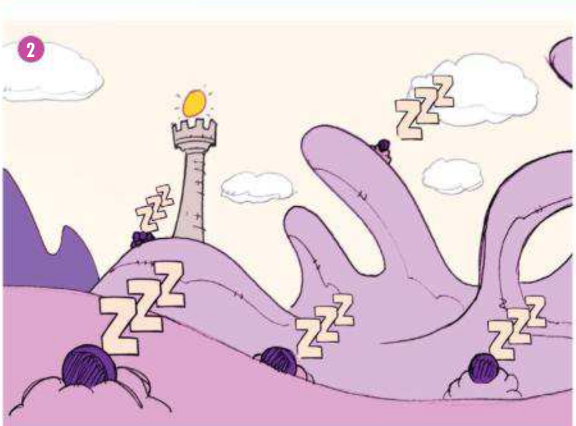
Jack Couvela
Senior art director

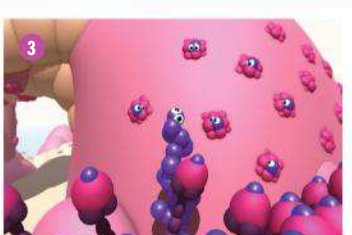
The bigger Ubisoft games have lots of features, collectibles and so on, but it feels like Reflections takes the opposite approach.

With these small teams in particular, it's a necessity! You can't help but burn things right down to the pure essence of an idea. What we're surprised by in this process every time we do it is how much you *can* boil it down and how much you *can* take away in order to reveal the purity of the idea at the centre.

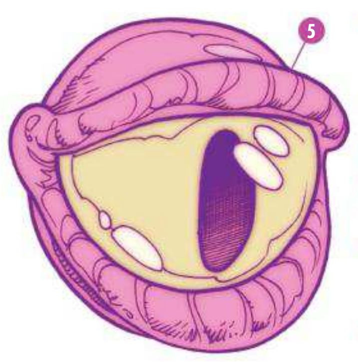
Did the team's experience with *Grow Home* help in that regard?
Yeah, with *Grow Home*, we kept on reducing and reducing the scope out of necessity for both the size of the team and the experimental nature of the game – it was a very tiny budget and a tiny group of people, and so you've got to work with what you've got and what you can fit in. I think what it's produced in both these instances is these little nuggets of what's absolutely best about those experiences and those ideas.

What other lessons did you bring from that game into the development of *Ode*?
For a long time with *Grow Home*, we had this physics-driven character with no animation – just a set of boxes that you were pushing around. It was awkward to control sometimes. And then as soon as we had the idea to give him great big baby eyes and a smiley face, it became endearing and you fell in love with the character. I think that's what stopped us being afraid when we came to making *Ode*, in making a character that had all this momentum, this seeming lack of control where you're at the whim of gravity and physics. That probably opened our eyes to making another experimental set of character controls.

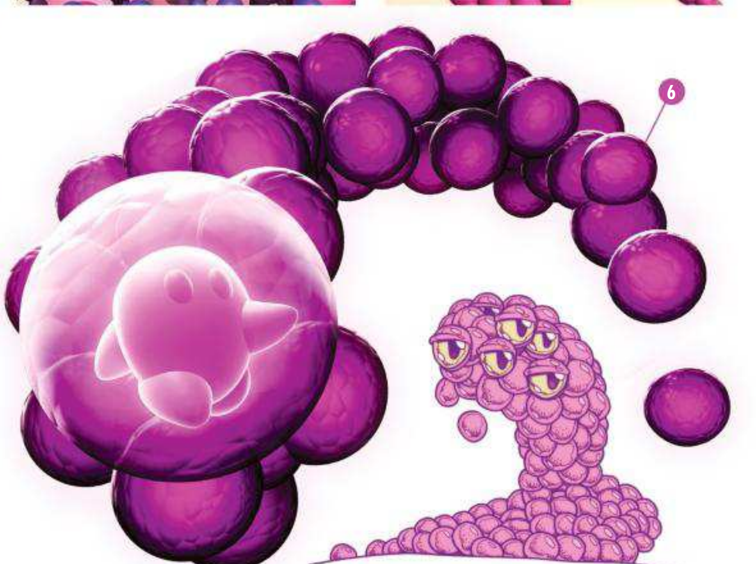


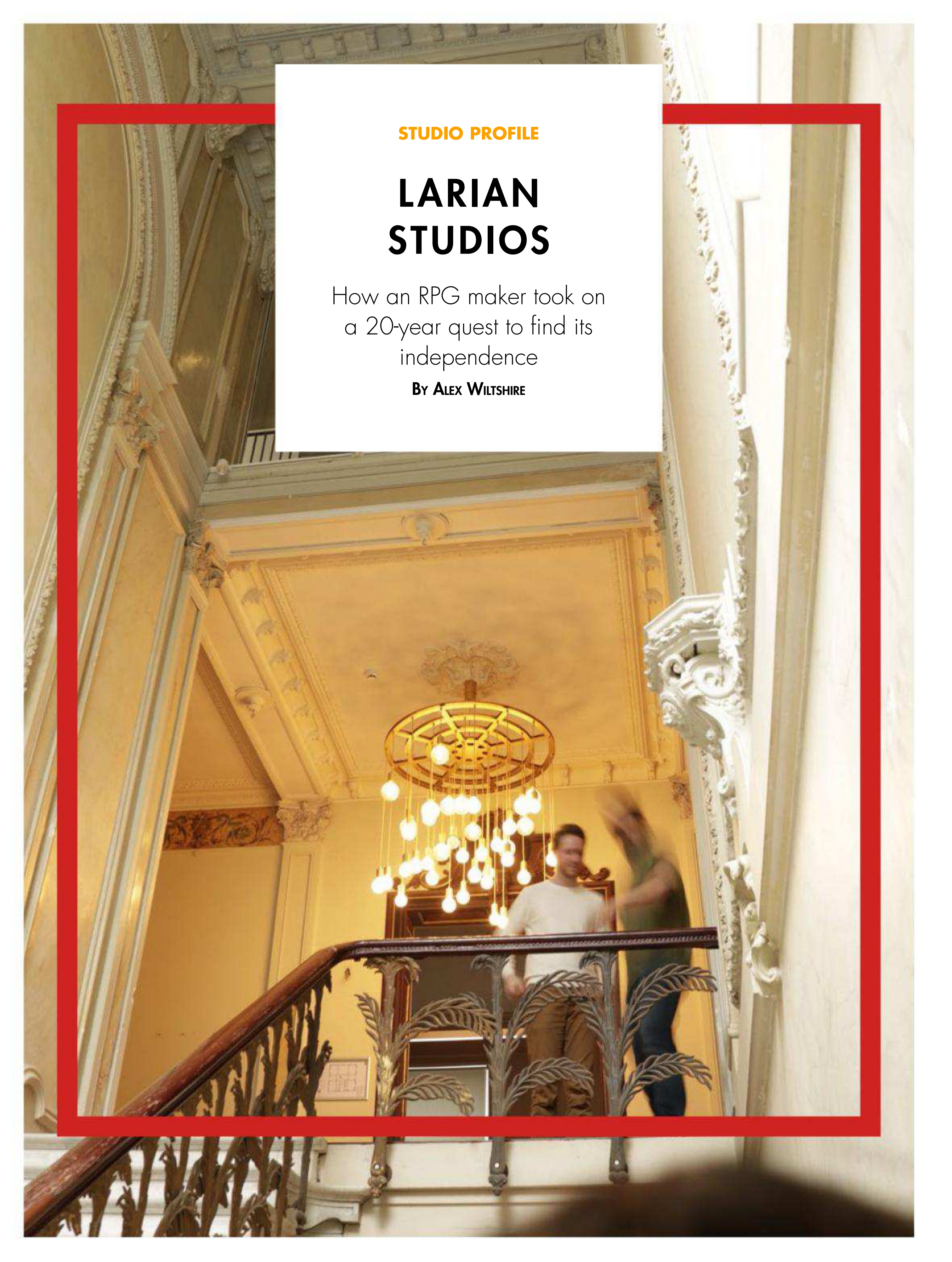






1 Early on, Couvela designed a bubblegum world: "I liked the idea of every surface being smooth to complement the flowing character."
2 Couvela sketched this storyboard for an early prototype narrative. It even had a fairytale-style voiceover.
3 Internally, the game was initially referred to by the name Bubbles.
4 Reflections flirted with the idea of enemies and threats before settling on a 'musical garden'.
5 Couvela: "The main character had sometimes just a single eyeball. I experimented with eyelid shapes to see how expressive it could be."
6 Joy's final design highlights just how much the game evolved





STUDIO PROFILE

LARIAN STUDIOS

How an RPG maker took on a 20-year quest to find its independence

By Alex Wiltshire

Larian Studios works a 16-hour day. Not, you should understand, because it's in a state of constant and debilitating crunch. Larian's lights are on for two-thirds of the day because it's spread across time zones, beginning in Saint Petersburg in Russia, continuing as Ghent in Belgium wakes up and then Dublin. Finally, as its eastern wing begins to wind down, the Quebec City studio opens. Aside from its smaller Dublin office, which focuses on writing and business, each of Larian's four studios sports a similar headcount and the same balance of programmers, designers and artists. They all contribute equally, a setup which allowed Larian's 150 staff to make an RPG as deep and intricate as *Divinity: Original Sin II* in just two years.

Larian cuts a distinctive figure in the RPG world. Entirely independent, it was founded by **Swen Vincke** in 1996 with the very same ambition that it has today. "We basically want to make worlds and tell cool stories in them, where you can be a hero and you also play with other players," Vincke tells us. It was an idea that sparked when he was growing up in a small town on the coast of Belgium. He didn't have a computer and no one around him was playing pen-and-paper RPGs, but whenever he visited a large city and saw people playing them he was fascinated. When he finally laid his hands on his own computer, he leapt straight into classic RPG series like *Ultima*. "But there was always this thing missing: you were *alone* in these stories. Then MMOs came, and they were cool because you were walking around with other players, but they were pretty bland. There was no *story* being told."

Vincke wanted to translate the freedom of the pen-and-paper RPG with the openness of online 3D worlds, so that every player progresses through an interesting story and their actions have an impact on the storylines each of their companions are playing. Larian's first project, *The Lady, The Mage And The Knight*, was a reflection of this idea, with three playable characters who could act independently in the world. But Vincke couldn't find a publisher who'd support it, and so began Larian's long and rather tumultuous first phase. Its debut game, released in 1998, was not an RPG, but an RTS called *LED Wars*. It wasn't until 2002 that it released *Divine Divinity*, an action-RPG which established the world of Rivellon. Three months later, Vincke had to lay off almost all his staff because, though *Divine Divinity* sold well, it didn't perform well enough to earn the studio any royalties. The next few years saw Larian rebuilding itself, releasing a sequel in 2004, but its real business was coming from a series of educational games based on an online gaming platform called KetnetKick, including one for the BBC called *Adventure Rock*.



Swen Vincke is the CEO of Larian Studios and is creative director of its games; (left) Larian has been renovating its 1850s Ghent office since it moved in two years ago

Released in 2009, *Divinity II: Ego Draconis* was meant to pull the studio out of the work-for-hire cycle and back towards its founding principles. Backed by money in the bank, a licence to use Bethesda's Gamebryo engine, a populist vision of free-roaming hack-and-slash action, and a plan to also release on Xbox 360, it could have done just that. But as delays kicked in, publisher CDV Software – for the second time in its relationship with Larian – forced the studio to release the game before it was finished. CDV went bankrupt the following year, pulling Larian along with its misfortunes. A re-release of *Divinity II* followed thanks to a new publisher, but it was clear to Vincke that the old model was no longer fit for purpose.

"There was a huge switch at Larian in 2010," he tells us. "We had this entire history with publisher relationships not working out and we said, 'OK, we're going to follow our own path, and publish ourselves'." The studio successfully approached venture capitalists to raise capital for two games: an RTS called *Divinity: Dragon Commander*, and *Divinity: Original Sin*. *Dragon Commander*, released in 2013, is a genre-twisting curio, featuring a Risk-style strategy game that puts the player into RTS battles in which they can take an active role by flying on the back of a dragon. It was reasonably well-received, but it wasn't until *Original Sin*, a richly detailed, story-driven, top-down RPG with turn-based battles and multiplayer, that Larian really found its own feet.



Founded 1996
Employees 150
Key staff Swen Vincke (CEO)
URL www.larian.com/
Selected softography *Divine Divinity*, *Divinity: Dragon Commander*, *Divinity: Original Sin*
Current projects *Divinity: Original Sin II*

Original Sin sat in the genre where the studio started out, but it also introduced Larian to new things, specifically crowdfunding. "Kickstarter was important. We had the money from venture capitalists, but we burned through it, and we were heading in the direction we were typically heading into, which was to release before we were ready," says Vincke. The game was successfully funded in April 2013 for $945,000, more than double its original target. "Kickstarter allowed us to continue developing past the point we ordinarily would have shipped, and it made all the difference, I think. We are a company that iterates a tremendous amount of times. We need to feel and play what we're making to figure out what it should be, and that takes time."

"WE NEED TO FEEL AND PLAY WHAT WE'RE MAKING TO FIGURE OUT WHAT IT SHOULD BE, AND THAT TAKES TIME"

***Original Sin* still** shipped with many bugs, but it had a level of polish that far exceeded Larian's previous *Divinity* games, and Vincke says that players tended to accept the odd glitch as part of a large and dynamic RPG which allowed them considerable freedom in how to take on its challenges: "These kinds of games will always have a lot of bugs because they're so hard to test." That crowdfunding success, which not only provided money but also began to forge a direct relationship between Larian and its players, naturally led to a return to Kickstarter for the game's sequel. *Original Sin II* was successfully funded in September 2015 for just over $2 million, a mark of the waves the first game had made for the studio.

"We've been lucky twice on Kickstarter, but you don't know [if you will be] up front," says Vincke. "We were super nervous when we





LEFT **Larian's Dublin office is where most of its writers are based, since the studio's main business language is English.** ABOVE **A satellite office in Quebec City, Canada was established in 2015 following the successful release of *Divinity: Original Sin***

launched our Kickstarters, and while you're doing it you're on one big adrenalin rush. With the second one we were better prepared than for the first, but we were still surprised by how fast it went. We weren't ready; we were at PAX and thought we'd have time to pack up and travel back to the office before we had to start talking about stretch goals, but it happened when we were there. We should have been ready!"

Yet Vincke values the impulsive nature of the Kickstarter experience – the crazy promises made in the heat of the moment. "It forced us into a number of stretch goals for *Original Sin II* that otherwise we would probably have dropped," he confesses. It's a common understanding that stretch goals are a dangerous proposition for a developer, raising backer expectations and adding to pressure on a studio before it's even overcome the challenge of completing the base game: "In the end the stretch goals were part of the critical acclaim and success that *Original Sin II* had." They added a great deal of extra work, but being able to play as an undead character opened up many new strange and wonderful narrative situations, and giving characters the ability to shapeshift added even more strategic options for play. Game Master Mode, in which GMs can conduct pen-and-paper D&D-style adventures, might only be used by a minority of players, as Vincke is happy to admit – but it also attracted further attention for the game and ended up forming the basis for a set of tools that allow the studio to better prototype and test scenarios and stories.

Along with the independence it's forged since 2010 in breaking ties with publishers, Larian has also gained technical independence in steadily building up its own tools. Having previously licensed Gamebryo, it was dependent on thirdparty companies, and as Vincke says, "Gamebryo's roadmap did not at all match what we needed to make our RPGs." So in 2010 the studio began to make its own engine, which has been in continuous development ever since, the team expanding on it and replacing elements as it's gone along. "It's the thing that allows us to make the type of RPGs we want to."

The main new feature is Larian's special difference: multiplayer. *Original Sin II* built on the previous game's ability to allow two players to independently roam the world by upping the party to four players and allowing any member to get into fights and conversations, and to make choices and affect storylines for everyone. Its features are also available for lone players, who can freely split their party up and switch between characters. Multiplayer imposes a multifaceted challenge. There's a technical one in streaming the world so the view can instantly flick from some subterranean cavern to the peak of a mountain and also support split-screen modes. The game has to be balanced so that any combination of players can stumble into a fight and still find the right level of challenge and fun. And the narrative design has to allow the game's consequence-deep stories to encompass the fact that there's no lead hero, and adapt to the way that storylines can be approached from any direction, in any order, by any character. And all without compromising on freewheeling interactivity and systems-driven emergence.

If you've the impression that Larian's worlds are piecemeal and patchwork, the result of responding to crises and opportunities as it's gone along, you'd be right. *Divinity*'s setting, Rivellon, is not the fully imagined fantasy setting that backs games like *Dragon Age* or *Elder Scrolls*. It was originally founded in three days of hurriedly giving *Divine Divinity* a plot to follow because it needed one. "The story was not really the concern at that point, it was really like, 'How can we make it fun?' It was only later that we started realising the importance of the narrative on top of all the systems, and then even later that we realised that the narrative had to interlock with the systems." Indeed, the long-lived *Divinity* name is only product of Larian's constant need to sell a familiar brand to publishers, venture capitalists and crowdfunders.

"IN THE END THE STRETCH GOALS WERE PART OF THE CRITICAL ACCLAIM AND SUCCESS THAT ORIGINAL SIN II HAD"

"With *Original Sin* we said, 'We should start taking this universe seriously and fix things so we're not just inventing it on the fly. From now it's like that.' Canon and lore are the least interesting things about fantasy worlds. What happens to the character is the most important bit. You have to have fun in a game, and lore and worldbuilding set the canvas for that, but part of the fun of RPGs is about interesting things happening for interesting reasons, and interesting choices with interesting consequences." It's surely no coincidence that just as Larian has finally begun to deliver on that idea, it's also finally found its own stride across business, design, technology and production systems. In every sense, Larian is at last the author of its own story. ■



❶ *Divinity: Original Sin II*'s character classes are fairly typical fantasy types.
❷ *Original Sin*'s Skeletal Scorcher enemy poses a stern early challenge.
❸ Dragons are a constant in the *Divinity* series.
❹ Larian's fantasy happily encompasses the silly.
❺ *OS*'s playable characters include a nautical dwarf and an aristocratic lizard

PLAY

REVIEWS. PERSPECTIVES. INTERVIEWS. AND SOME NUMBERS

STILL PLAYING

Destiny 2 PS4
Yes, you read that right. After a few months in which we came perilously close to deleting it to save hard drive space, we're back in Bungie's muddled shared-universe shooter again. It's early days for Warmind, which launches as we send to press – and we're not expecting much from the story. But a sweeping sandbox update has done wonders for the power fantasy, and it seems there's now an endgame grind to savour.

Donkey Kong Country: Tropical Freeze Switch
Its pricing may be scandalous – it takes remarkable cheek to sell a barely improved remaster at a higher price than the original – but *Tropical Freeze* is exceptional when it really hits its stride. If this turns out to be the foreword for the glorious E3 return of Retro Studios, Nintendo, we might just about be able to overlook that £50 price of entry.

Yakuza 6: The Song of Life PS4
We're taking a break from the bright lights of Kamurocho. There are, after all, some Onomichi locals we haven't properly befriended in the bar-chat minigame. These more sedate pursuits might be fitting for a man of Kiryu's advancing years, but he's not fully ready to grow old gracefully: the series hasn't jumped the shark just yet, but the final spear-fishing mission does provide the opportunity to punch one.

REVIEWED THIS ISSUE

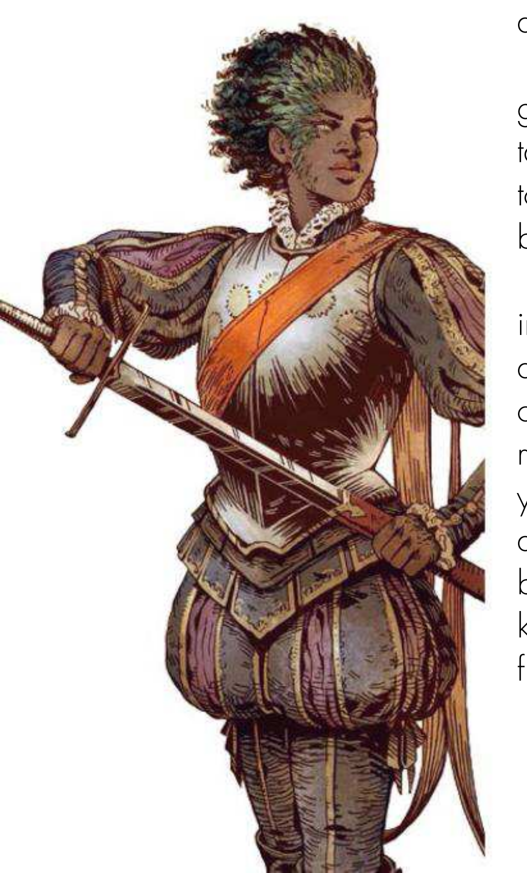


Explore the iPad edition of Edge for extra Play content

Peeling back the layers

Is there a limit to complexity in videogames? If this month's Play selection is any guide then if there is a ceiling on how far developers are prepared to push us, it's nestled somewhere out of sight above the clouds. Games have always been as much about testing our ability to keep plates spinning as our reflexes, admittedly, but sometimes you can't help but wonder if things are beginning to get out of hand.

Take, for example, *Pillars Of Eternity II: Deadfire* (p110) – a game which was crowdfunded to the tune of $4.4 million on the promise of taking players back to the nails-hard complexity of old-school CRPGs such as *Baldur's Gate*. So, yes, it was always going to tax the grey matter. The audience for this sort of thing simply wouldn't accept anything less. Yet on top of everything else, developer Obsidian layers a ship-management simulator, asking us to keep our vessel in good order and its crew in decent spirits.



Battletech (p116) tells a similar tale. Like *Pillars*, this is a game that's old in spirit given thrilling new life. Its game of taut turn-based strategy is made even tougher by the need to balance your books behind the scenes; war is hell, sure, but bankruptcy is even worse.

There's nothing wrong with games respecting players' intelligence, of course. And we'd rather this than the alternative, which would be seeing beloved genres of yore coming back diluted. But it says much about the sort of month we've had that *Frostpunk* (p106), a game in which you are faced with life-or-death decisions every few minutes and where you can enact child-labour laws, feels like a breezy walk in the park by comparison. Yes, fine, send the kids down the mines, by all means. At least we might get five minutes' peace and quiet.

Frostpunk

Management games, particularly city builders, are frequently guilty of depicting the breadth of human experience without the depth. *SimCity* and its successors – both evolutions of the form, such as *The Sims*, and modernisations such as *Cities: Skylines* – present some of the challenges of life, but rarely ask you to consider the consequences of either those problems or the solutions brought to bear to fix them. It wouldn't necessarily be appropriate for them to do so: they are toys and toolkits, sandboxes that task you with engineering solutions to complex problems in a safely abstracted environment. If *SimCity* took it upon itself to seriously depict the impact of deprivation, it'd be unlikely to remain a game where players happily sink idle weekends in pursuit of their ideal town. To the extent that this genre has a dark side, it chiefly manifests as money-sink mobile and browser games that take the benign ambivalence of the management sim and push it further in pursuit of player retention. *Frostpunk* challenges these assertions. It is a city builder where survival is not a given; where threats are often existential; where building a civilisation that lasts is hard, but building one that retains its respect for essential freedoms is harder. It is a spiritual successor to 11 Bit's *This War Of Mine*, a continuation of the studio's interest in unlocking the expressive potential of management games.

The setting is an alternate Victorian era where a mysterious environmental catastrophe has plunged the world into a sudden ice age. In the main campaign you are the leader of 80 survivors, the last remnants of the city of London, striking north into the Arctic circle in pursuit of a generator – a column of heat-generating steampunk tech that forms the heart of your new city. Unlike other games of its kind, a *Frostpunk* campaign – there are three at launch – has a fixed length that spans a number of in-game days. This includes set-piece challenges that punctuate your own freeform problem solving: you might be tasked with handling an influx of refugees, perhaps, or dealing with a political crisis as more and more citizens plan to flee south. This structure is one of the key factors that differentiates *Frostpunk* from its peers: it is not a sandbox that you tinker with, but a challenge that you try to solve. In this regard it has more in common with cooperative tabletop survival games such as the *Pandemic* series than it does with *SimCity* or *Cities: Skylines*.

It has much the same moment-to-moment vocabulary, however. Buildings and roads are laid out in a radial pattern from the generator, consuming reserves of wood and steel that must be initially gathered from nearby debris fields. You command your people by assigning numbers of workers to specific tasks. *Frostpunk* does a good job of automatically deploying your human resources on your behalf without ever

Developer/publisher 11 Bit Studios
Format PC
Release Out now

Building a civilisation that lasts is hard, but building one that retains its respect for freedoms is harder



feeling like it's making decisions for you: you set the agenda, but the game ensures that you don't have to spend too much time micromanaging its execution unless you have a more complex outcome in mind.

Your people require feeding, which necessitates the construction of hunters' lodges and hothouses. And above all you contend to keep your city liveably warm. Cold, exacerbated by homelessness, causes illness – and therefore a loss of productivity. You must secure a reliable supply of coal to fuel the generator, and consider how you're going to approach the problem as conditions worsen. A weather forecast warns you about coming cold snaps, and the temperature will steadily drop as the campaign wears on. At this point a coal supply isn't enough: you must consider the cost of satellite heaters, installing insulation and central heating in your workplaces, building more robust shelters, and so on. Tackling this challenge while also meeting your citizens' other needs forms the substance of *Frostpunk* as a numbers game, and it's to its credit that it doesn't feel like there's a single solution. You are given a wide spread of options with which to lay out your approach.

Although your city is limited to a single location, you quickly unlock the ability to send teams of scouts out into the wilderness. You can then conduct expeditions to distant points of interest, weighing risk against reward as you come across resource caches, survivors, and potential outposts. Desperation might cause you to strip a coal mine of its gear in order to build essential upgrades back home, but this comes at the cost of being able to use that mine yourself later on.

The emotional needs of your populace must be considered alongside the practical concerns of survival. These are represented by 'hope' and 'discontent' meters. Allow the latter to fill too high and not only may your citizens abandon you – but they might send you out into the wilderness to die, too. Hope and discontent are impacted by your ability to keep resources flowing, but also by the policy decisions you make: the two are intricately connected, and it's in that connection that *Frostpunk* finds its voice.

Early on you will, for example, need to figure out what to do about children. Survivors will sometimes arrive with them, and they do not – by default – do anything except eat. Sign a child-labour law, however, and you will gain a new workforce at the expense of rising discontent: but when that labour force keeps the lights on, perhaps the tradeoff is worth it in the long term. Initially you'll retain public support by limiting the sorts of work that children can do, but later – when things get harder, and colder – the option is always there to open up child labour completely. If this makes you uncomfortable, as well it may, you might invest resources into opening children's homes, and later ▶

ABOVE *Frostpunk*'s cities are evocative places. Snow settles dynamically based on the temperature of individual buildings, and rows of houses will naturally form terraces. RIGHT Religion can bring both greater community cohesion and create opportunities for unjust persecution and abuse. It's up to you where to draw the line



BELOW Finite space and resources make every decision, and every passing day, count in a way they don't in other management games



ABOVE Maintaining a comfortable heat for every citizen is typically more resource-intensive than you can generally afford. Because of that, there are always compromises and sacrifices to be made in your management

asking children to take medical or engineering apprenticeships: a positive but resource-intensive outcome that asks you to make sacrifices elsewhere.

There are also illustrated events that crop up from time to time in the city: citizens stealing food, desperate fathers seeking permission to venture into the wilds in pursuit of a lost daughter, malcontents scrawling political graffiti. Your options often depend on the policy decisions you've made up to that point, and this can sometimes lock you out of the 'best' outcome. That said, these interludes feel more like tone-setting vignettes than strict challenges. If anything, *Frostpunk* could do more with it – the potential to tell short stories in this genre is underexplored.

Yet *Frostpunk*'s greatest asset is the way it asks you to weigh your comfort against the strict mechanics of the scenario. Players of management games have always balanced efficiency with their imaginative sense of the place they are creating, and 11 Bit uses that phenomena for the basis of a more mature, more human sort of challenge. There are many such decisions to make in the course of a campaign, with a crucial juncture establishing whether your city will pursue discipline and reason (at risk of fascism) or faith (at risk of fundamentalism). Each has benefits, and it's crucial to *Frostpunk*'s overall tone that the situation isn't too grim.

The game does its best to push you into compromising decisions, however. In the final stages of the campaign you're asked to survive against hugely escalated odds, and latter policy choices offer huge benefits with commensurate humanitarian drawbacks. While it is likely impossible to succeed without conceding some of your ideals, surviving without fully letting go of your morality is a worthy challenge –



ALTERNATE PATHS

After reaching a crucial point in the main campaign, you gain the option to embark on two additional scenarios. Each features a new environment and a new criteria for success: for example, building an automated city capable of keeping vital seed vaults warm even if its entire human population dies in the attempt. These extra campaigns extend *Frostpunk*'s lifespan and gesture towards its future. Given that this is not a sandbox game with unlimited scope, providing more bespoke challenges is the most obvious way for 11 Bit to support the game after launch. A 'coming soon' placeholder indicates that a fourth scenario is on its way, and the developers have implied that these expansions will be free.

Planning ahead has huge rewards, and repeat play offers a chance for more successful cities to be built. And, in theory, less morally compromised ones, though you may choose the other path and put the kids straight to work

though this is something *Frostpunk* doesn't do a great job of recognising. Its message is that extreme conditions force leaders into uncomfortable decisions: succeeding without excessive compromise is gratifying but glossed by the game's ending, the message overtaking the medium in a way that weakens an otherwise gripping finale.

There are a few other weaknesses. *Frostpunk* is unusually atmospheric for a game of this type, and the UI is attractive and functional – but it's light on tutorials, throwing you immediately into a survival situation and asking you to rely on tooltips to figure out how everything works. There's a pause function to allow you to take your time with early decisions, but there's a knowledge barrier to surmount before you can start making the really tough decisions. Similarly, the parameters for certain objectives can be unclear, with frustrating consequences: experimentally toggling the generator's overload function after you've made a promise to heat a certain number of homes will be understood by the game as you fulfilling and then immediately breaking that promise, with dangerous consequences for morale. If *Frostpunk* feels like a boardgame in other regards, little breaks with logic like this highlight the absence of a human rule-parser.

Even so, *Frostpunk*'s atmosphere, tight structure and sense of purpose make it stand out in a genre often given over to abstraction. It's not a sandbox or a set of tools for you to express yourself: it's an experience curated with an authorial eye, and all the stronger for it.

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Post Script

Kuba Stokalski, lead designer

Kuba Stokalski is the lead designer of *Frostpunk*. Here, he discusses the challenge of building a city management game with meaning, storytelling through systems, and balancing the game's sombre tone.



Was it a challenge to build a message into a city management game?
We knew we wanted to do that, but nonetheless it turned out to be the biggest challenge of the development process. A lot of management games already have some kind of statement written into them because of the verbs and the nouns they use in their design, but I get the feeling that it's not something very thought through in the sense of one particular vision being behind it all.

We knew we wanted to ask a question about what society is capable of when pushed to the limit, and that was the spine that ran throughout the design and the systems of the game. To make all of these different moving parts work in the context of this one unifying theme was a huge undertaking. During three years, that was probably the biggest design task that came up.

Were tabletop games an influence?
Actually, the first prototypes were tabletop – so yeah, definitely. What we strive for in design always is clarity and a degree of intuitiveness. You could point to a lot of purely city-building games that are heavier on the simulation side, for instance. The core of our game is about decisions and choices that you have to make, so we found quickly that a lot of discrete mechanics that are common in boardgames worked better when it came to presenting this situation in a clear and easily distinguishable manner.

How much do you want players to avoid parts of the policy tree – to really not want to do things they feel that they might have to do?
The basic question was, 'How far are you willing to go?' A lot of the law and a lot of the content is coaxing you into making a decision. This core dilemma between doing what is efficient from a resource and survival standpoint and contrasting this with human values is at the heart of it. It was a deliberate decision: here's a tool you could easily use – are you willing to use it to make sure you get to the end of the game?

How do you encourage players to consider the moral ramifications of their choices, rather than simply the effect on their resource levels?
It was the role of our art department to show you the people that your decisions will affect. Writing the game was very challenging as well. You don't typically think of city-building games as being challenging in the department of writing, but phrasing situations so they convey the meaning we want them to convey but are not simply controversial for the sake of being controversial – this was a big challenge. Searching for a style took us a very long time.

> "It was the role of our art department to show you the people that your decisions will affect"



There's a risk with any game that features difficult subject matter that players will simply push it away.
That's true, but the concept which came up during and after the launch of *This War Of Mine* was whether games should be fun, and what fun actually is. The solemn atmosphere of *Frostpunk* was a very conscious choice. Going 'full emotion' – tears down your cheeks, etc – would feel cheap. At the same time, going too lighthearted would diminish the impact we wanted the game to have. It was a balancing act, and we found that this type of sober atmosphere throughout the whole game would actually bring out the decisions that you're mulling over inside your head.

When did it occur to you that a *Frostpunk* campaign would have a finite length? It's not the default assumption for a game in this genre.
It came through iteration. The very first prototype had an ending as well, but then we said, 'Well, we're building a city-building game, it has to stand up in this genre, so maybe it should be a sandbox and just focus on systems.' But in the end through testing we saw that this core message – asking the player this question, and ensuring that they answer it through core gameplay – just doesn't work in a sandbox environment, where you can shrug off any decision because you can go indefinitely. Framing all of this gameplay in a thing that has a beginning and an end allowed us to tell a story – or to give the player the tools to tell the story of this city.

Is there a right answer to that question? Is there a particular message that the game is working towards as it progresses?
The question is the message. There are things that I think anyone in the western world would say were crossing the line. But other than that, it's a question that we even had to discuss within the team: is it worth sacrificing one life to make sure that others survive? Is survival at all costs the ultimate value, or are there situations where the win condition would be to not survive but retain humanity? We really strive not to show you any definitive answers – we prefer to present you with decisions and then show you the consequences of those decisions. Whatever you make out of it is up to you. ■

Pillars Of Eternity II: Deadfire

At the Vailian Trading Company HQ in Neketaka, the bureaucrats are worried. Less so about the mysterious movements of Eothas, a god in physical form whose every stride brings devastation and lost lives to the Deadfire Archipelago, and more about his interest in their chief mining prospect: luminous adra. The rock glows turquoise with mortal souls waiting to return to the land of the living with the next turn of Berath the death-god's wheel, and prospectors have been selling those souls as a cure-all to adventurers and animancers keen to harness its restorative power. It's become big business, much to the disgust of the indigenous Huana, who made a reluctant deal with the trading companies to necessitate their survival.

A few islands further south on Fort Deadlight, pirate captain Benweth's concerns couldn't be further from rampaging gods or financially precarious conglomerates. He's just wrecked the Watcher of Caed Nua's ship and returned home to enjoy a couple of courtesans in celebration. He hears the bawdy merriment down below at the court, stirred up by god-killer grog and Cookie Maina's special spiced stew, and momentarily forgets his many enemies. He has no idea the harpsichord he's about to play is rigged with a Cinder Bomb.

This is a world you can walk inside – a world you sit and think about when you're not in it. From its promotional materials, you'd think *Pillars Of Eternity II* was a game concerned only with dice rolls and character sheets, built to test the mettle of thousand-hour *Baldur's Gate* veterans. It certainly doesn't shirk its responsibility to the CRPG hardcore who helped fund it, but this game is defined by its masterfully realised fantasy, not its stats menus. If the first *Pillars* played things a bit safe with its overly familiar Euro-fantasy world of Dyrwood, the same criticism could never be made of its sequel. The Deadfire Archipelago is rich with a kind of political skulduggery it's actually possible to follow and care about, populated by tribes, factions and races whose identity and interplay are fascinating to observe, and perhaps most importantly, it has quests that make you feel a part of the world, instead of an obedient map-marker retriever.

For those who haven't spent the last 20 years playing and replaying Black Isle's Infinity Engine RPGs, *Pillars Of Eternity II* harks back to a specific wave of games that married AD&D rules with beautifully written text adventuring on an isometric plane. Combat is realtime, but governed by an explicit dice-roll-based system that requires party micromanagement and liberal pressing of the pause button mid-fight to issue orders. Example: Coral Naga deal high slashing damage, so you position your tanks to the fore to soak it up. They're weak to shock damage, so you set your spellcasters on shock spells while a healer keeps the two tanks ticking over and a utility build buffs their attack stats. Unpause. Watch that set of orders play out. Pause. On anything above 'story' difficulty mode, it's staggeringly difficult. Partnered with that mechanical complexity is a written word storytelling style, sometimes narrated and voice-acted, and sometimes illustrated in static set-pieces.

When the first *Pillars* arrived, it was enough that it simply looked and played like *Baldur's Gate* or *Icewind Dale*, without truly embodying the qualities which gave those games such enduring reverence. *Pillars II* is a different proposition. Not simply content to ape old *Black Isle* games, it turns the constraints of isometric design and reams of text into real strengths, reminding you what vivid adventures can be achieved with a few static images and the right words.

The atmosphere's definitely that of colonial-era Caribbean piracy, but sorely tempted though they must be, none of Deadfire's denizens let slip an "Arr!" in your presence. Instead, conversations are peppered with occasional words in a character's native tongue – translated to English by hovering the mouse over the word – which sell the conceit of this being a world that functions well beyond your understanding and carries on when you're not around. NPCs run daily routines based on day/night cycles to that same effect, while companion chatter can be downright eerie in its specificity: two arquebus specialists boasting to each other about a good shot mid-battle, or an argument breaking out over something an NPC said in the last town. Like everything here, companion relationships are governed by a transparent but complex system whose end result is simply a more involving world.

Obsidian's bravest step forwards with this sequel is the introduction of a ship-management element. No longer simply a Watcher with the ability to read and commune with souls, you're now also a captain in charge of recruiting a crew, keeping them fed, managing their morale, and upgrading the ship itself. Navigating the archipelago is all handled in this way – you set sail for a new land and deal with enemy vessels as they appear via multi-path text sequences.

Coupled with an already byzantine combat system, it's a lot to take in. During the opening hours the game feels as though it's positively groaning with moving parts that all require your attention, but the fear that you may be overwhelmed subsides. You're distracted by conversations with gods in other planes; diverted by Director Castol's dangerous adra experiments; led off the main questline by amorous companions and surprise naval battles with Principi plunderers. Far from simply feeling sufficiently old-school, *Pillars Of Eternity II* is a game of systems and setting working in wonderful harmony and with a pioneering spirit, exposing what it is that players miss about those particular 'good old days' in the first place.

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Developer Obsidian Entertainment
Publisher Versus Evil
Format PC
Release Out now

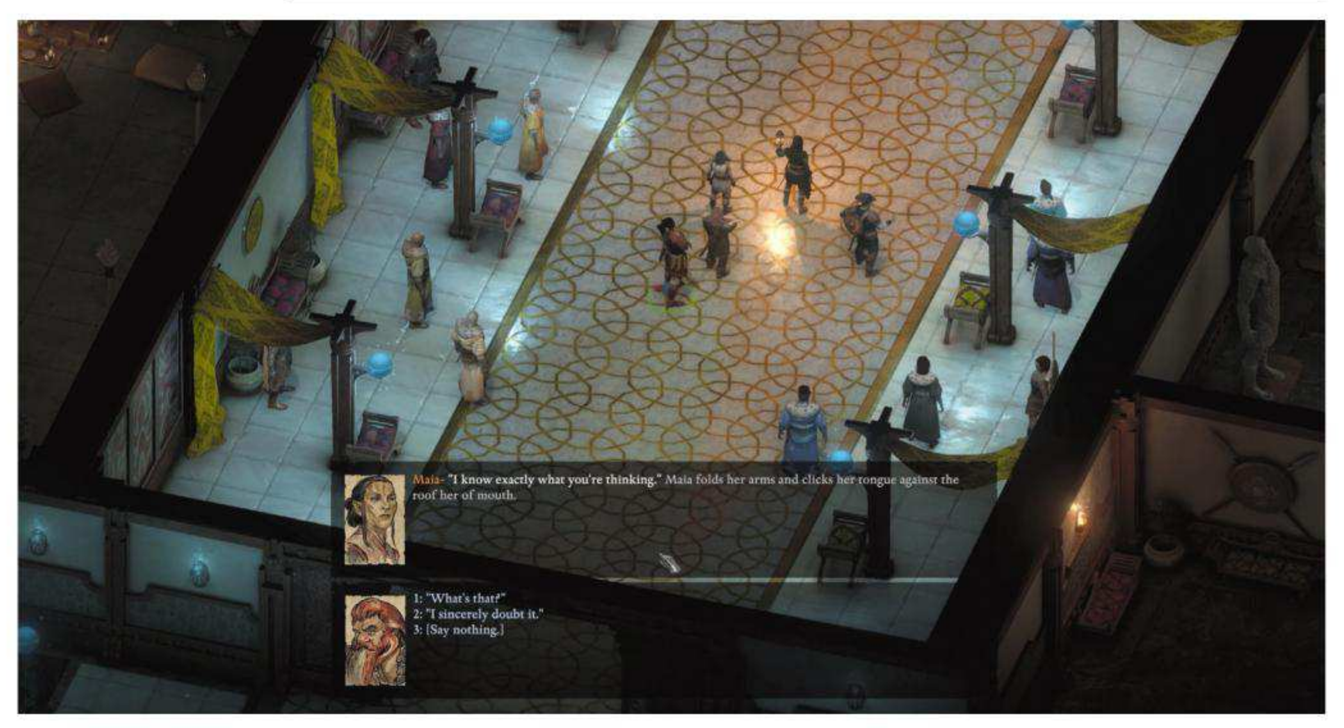
This is a world you can walk inside – a world you sit and think about when you're not in it



TALKING IN TONGUES
There's a quiet genius to the construction of *Pillars Of Eternity II*'s fictional languages. Not only do they all weave their way into your mind over time, like the Slavic-inspired invented slang of Anthony Burgess' A Clockwork Orange, until you inadvertently become fluent; they tell you plenty about their speakers, too. Vailian uses lots of sounds from Latin and the romantic languages ('per complanca' is mercy; 'belfetto' good or great) to conjure a perception of cultured invaders. By contrast, the Rautaui language is based on Maori and intended to draw parallels with a tribal tongue. Where some developers might be happy to simply add a line in a character description, Obsidian has created large chunks of new languages to characterise its NPCs.



RIGHT Party size shrinks down from the first game's six to five, making the command-juggling and resource management of each fight slightly easier. Slightly.
MAIN The UI lets you know why you're given certain dialogue options: perhaps meeting a specific stat requirement, or making a decision in the first game whose consequences spill into this.
BOTTOM Feed your crew flavourless hardtack and plain water for days on end, and morale will suffer. If it dips below a certain number, your crewmates may even mutiny







ABOVE A high perception stat will highlight hidden traps and loot containers throughout the game world. The former can often be the difference between life and a particularly embarrassing death


Longform RPGs often struggle to captivate but this ominous conversation at Berath's card table does as good a job as any

Post Script

How Obsidian defined its future by delving into its past

What do players really want from a retro proposition like *Pillars Of Eternity*? If it's purely about the nostalgic appeal of the Infinity Engine RPGs – *Planescape Torment*, *Icewind Dale* and *Baldur's Gate* – then why not just play those games? They do still exist, after all, and thanks to Beamdog's efforts they even have remastered editions for those unwilling to delve into fan patches and text file editing for the original discs' sake. Therefore nostalgia can only provide part of the draw of *Pillars*.

There are other significant facets of game design from that halcyon era that should be celebrated on their own terms, not simply because they remind us of our younger days. The level of challenge games presented 20 years ago was certainly higher, for one. The audience hadn't yet broadened out beyond an engaged hardcore that was willing to spend hours on a single encounter when *Baldur's Gate* was released in 1998, so its developers were entitled to pitch the difficulty at a high mark. As the medium's matured and attracted mainstream audiences, learning curves have shallowed, and a certain contingent feels perpetually overlooked. The kind of player who might back a crowdfunding project that promises old-school tabletop RPG mechanics, perhaps.

And then there are what creative director Josh Sawyer called 'wildcards' in his GDC 2016 postmortem of the first *Pillars*: the offbeat, throwaway elements that might make developers cringe to recall later in their careers, but convey a sense that this is something human beings made, and even enjoyed doing so. The golden pantaloons and Noober the NPC in *Baldur's Gate*, and the talking – often caterwauling – sword in its sequel are often what people remember most vividly about those games, and by extension that era. Before huge development teams with countless department leads smoothed out every rough edge, wildcards would often make it through to release. Ultimately they contribute to that elusive 'soul' of a game. The tone and atmosphere are created by all the component parts, and the reason people are still passionate enough about it decades later.

These tenets were all identified early in pre-production, with the aim of creating a new title with just enough devotion to the original Infinity Engine games to come across as authentic, without drilling so slavishly into their specifics that it lost sight of their soul. In *Pillars I* and *II* that means 2D isometric environments with 3D lighting, which literally casts a new complexion over an old and familiar environment style. Meanwhile, raising the isometric viewpoint by seven degrees compared to *Baldur's Gate* and *Icewind Dale*'s perspective allows for more emphasised vertical structures in exterior locations, and fewer instances of characters wandering in and out of view behind objects. It's an almost imperceptible change that, like many touches in *Pillars*, circumvents the inherent fiddliness of the older games without upsetting the apple cart. In other words, Obsidian found a way to recreate the experience players remembered, rather than the one they *had*.

In those newfound spaces they created between the old foundations, Obsidian could exercise some creative freedom. Ship management in *Pillars II* has no analog in any of the Infinity Engine RPGs, and yet it seems to fit so naturally with the rest of the experience because its menus and visual markers are consistent with the whole. The same can be said of other new elements in the dynamic 3D models breathing life into static 2D maps: birds flying overhead as you walk across a town square, or lapping waves by the dock. You don't stop and think about whether they were present in *Baldur's Gate II* – you just drink in the atmosphere. This is a balancing act that few developers have attempted, and Obsidian's blueprint will prove useful to any that do. ■

Forgotton Anne

One of your earliest objectives in *Forgotton Anne* is to locate a pair of mechanical wings. There's a bit of pomp and circumstance to their unveiling: a tacit assurance that this delicately hand-crafted piece of engineering will be significant in some way. Not so. Anne's wings are required, certainly, functioning as a jump extender when her natural spring isn't sufficient to reach a higher platform or cross a longer gap. But that's all they are, the kind of underwhelming optional upgrade you'd find in any common-or-garden Metroidvania, except this is the only one she'll ever pick up. That in itself isn't a problem, because *Forgotton Anne* isn't that type of game. But these flimsy wings just about sum up ThroughLine Games' debut: it has the potential to soar, and yet consistently struggles to get off the ground.

It's all the more regrettable given the developer's evident talent for world-building. The opening briskly and effectively establishes a universe in which the lost items of our reality – Forgotlings, in the game's parlance – have gained sentience, thanks to a magical energy called Anima. Most have taken familiar jobs: a petrol pump is a security guard of sorts, a fridge tends bar (charmingly, it uses its wire and plug as a surrogate arm with which to mop up spillages) and a magnum revolver is the local chief inspector. Anne, meanwhile, is known as The Enforcer, charged with keeping any troublemakers in line. She lives with Master Bonku, a craftsman and scientist in the process of constructing a bridge to take these abandoned objects back to the real world – and who looks as if he's been ripped from a Saturday morning kids' cartoon from the 1980s. Tonally, it finds a sweet spot between the bleak fantasy of The Secret Of Nimh and the magical realism of Spirited Away. A thick streak of melancholy runs throughout the story, and there are plenty of darker moments, but it doesn't wallow in them. Instead, the story is frequently buoyed by an undercurrent of determined optimism.

There's intrigue, too – for the first act, at any rate. A group of rebels is stirring up trouble, and Anne is asked by Bonku to investigate while he continues work on his bridge. An early encounter with a talking scarf sets up a key mechanic: Anne can siphon the life force (or Anima) from Forgotlings with a wrist-mounted device known as the Arca. Drain the poor scarf and you're told that events could have played out differently – one of only two times, oddly, that a choice is presented as having a tangible impact on the story, though as you'll later discover, there are more. When dealing with other insurgents, Anne can be as formidable as her title suggests, or she can treat them with compassion. Inevitably, as she comes to discover there's more to their plan than she's been led to believe, her loyalties – to the job and to Bonku – are tested.

Developer ThroughLine Games
Publisher Square Enix
Format PC (tested), PS4
Release Out now

We're left with a bitter aftertaste from a game that squanders its considerable early promise



PARADOX INTERACTIVE
Once the credits have rolled, a chapter select unlocks, letting you witness the alternative ending within minutes. Or you can go back earlier in the game to see where different choices might have taken you, creating a new temporary timeline which you can follow as far as you wish – with any events from the original timeline prior to that point remaining unchanged. Though you only ever have two options in any given scenario, some branch further, changing events on the journey even if the ultimate destination is the same. All choices across all timelines are recorded as entries in Anne's diary, which also holds collectable mementos. Rather than simple documents, these range from blueprints to posters, letters to propaganda, and tickets to drawings, adding extra background colour that makes them worth seeking out.

For a while, it's gently absorbing stuff. When you're not exploring the world or talking to Forgotlings, you'll face a number of environmental puzzles, in which you'll transfer Anima between generators and junctions, while tugging levers and pushing switches. The Arca can only hold enough Anima to power a single device, which allows for some smartly assembled challenges requiring careful timing and positioning. Occasionally, it asks a little too much from controls and animations that haven't exactly been built for speed: much like Jordan Mechner's original Prince of Persia, Anne moves fluidly but sluggishly, though you soon learn to accommodate. Besides, the trade-off is frequently worth it: though its side-on perspective rarely changes (and the art suffers whenever it does) this is a sumptuously-conceived world, rendered with rich detail and lit in such a way as to make the most mundane of settings feel wondrous.

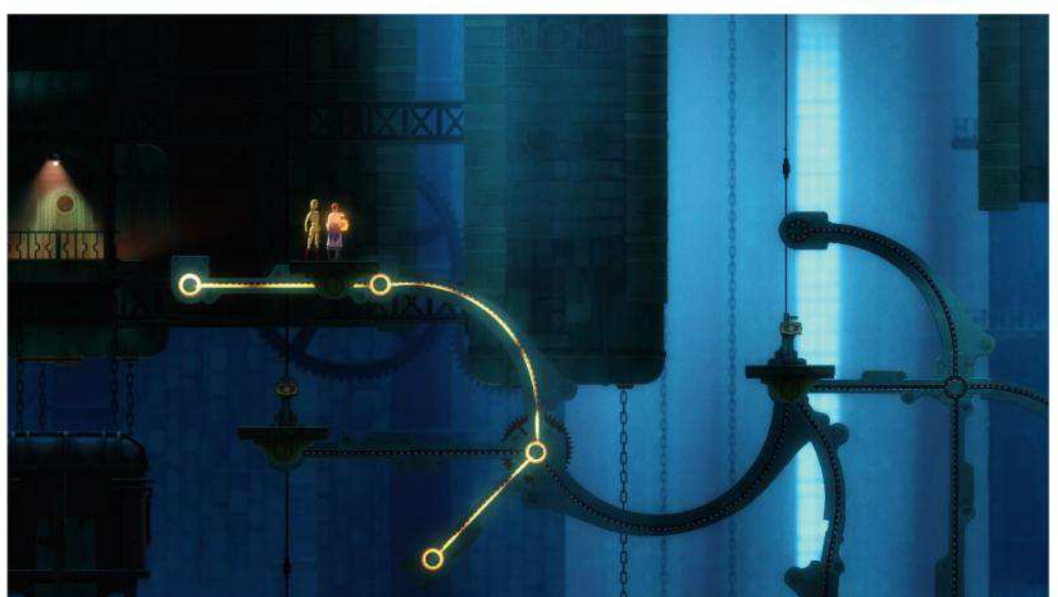
Then, alas, it all begins to fall apart. It's more a steady dismantling than a sudden collapse, as what at first felt like a slow burner grows increasingly ponderous, with several puzzles becoming little more than arbitrary roadblocks designed merely to postpone the end. Its dialogue, charming for a while and well-performed throughout, seems ever-more overwritten, while Anne's character oscillates between severity and kindness regardless of the player's actions. The story tips its hand too soon – one revelation really isn't well hidden – leaving the player constantly waiting for the naive protagonist to catch on. Set-pieces that demand speed become frustrating, then faintly comical, as Anne fails to make straightforward jumps because she wasn't in the precise spot to trigger the edge-grip animation.

Worse is to come. The home stretch appears to leave a yawning chasm in the game's narrative logic, with one significant development left bafflingly unexplained. A brief episode in a library lets the developer acknowledge its biggest influences with an embarrassing lack of subtlety, just in case you hadn't quite grasped the story's themes. And one late-game sequence, though conceptually dazzling, astonishingly demands that you jump to platforms you can't even see. It culminates in a final choice, essentially between brazen self-interest and inexplicable sacrifice; neither of the conclusions that follow is satisfying.

Our frustration, then, is not so much with those awkward controls, nor even the painfully dull door puzzles that sporadically bring your journey to a thudding halt. Rather, we're left with a bitter aftertaste from a game that squanders its considerable early promise. The obvious response would be to suggest it deserves to be forgotten, but that wouldn't be accurate: in all likelihood, we'll remember its delightful world for some time. In future years, we may even enjoy the few fuzzy memories of *Forgotton Anne* that linger. For now, however, they're tinged with disappointment.

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ABOVE With no waypoints and very few hints, you will occasionally find yourself wandering away from your objective before you head toward it. But there's usually something to discover in the opposite direction: a memento, an optional encounter, or simply another charming detail. **LEFT** *Forgotton Anne* does scale very well, the camera often stepping back to take in an exterior environment or a large piece of machinery. It's here that our protagonist feels at her most vulnerable, even if she's rarely under any real threat



BELOW Unless ThroughLine Games has been deliberately taking cues from Christopher Nolan's Interstellar, there's something off about the sound-mixing on occasion. Here, it's rarely the music that overwhelms the dialogue, but rumbling background noise



ABOVE The art holds up beautifully from this distance, but during the brief cutscenes it looks a little cheap. Human characters are apt to suffer most, with clumsy lip movement and weirdly cavernous ears



Battletech

The Battletech tabletop game has a long history of adaptation, most notably in the form of *MechWarrior* – the long-running and highly technical sci-fi mech combat series that held sway on the PC throughout the '90s. In this reimagining, *Battletech* returns to its roots as a turn-based skirmish wargame with a campaign-spanning strategy layer that recalls *XCOM*.

Battletech's combat system is heavily influenced by that original tabletop game. This is particularly apparent in skirmish matches – either singleplayer against the AI, or online against other players. Here, evenly matched squadrons of battlemechs (called lances) encounter one another across open terrain. *Battletech* is turn-based, but forgoes a grid in favour of a highly granular strategic sandbox that places heavy importance on environmental factors. Mechs depend on true line of sight and the effective management of complex weapon systems to make successful attacks. For example, a mech armed with laser weapons can make powerful and accurate attacks at medium range but generates a lot of heat when it does so. The nature of the battlefield therefore has a heavy bearing on the best of use of these weapons: in an arctic biome, a laser-toting mech will be more effective than it would be in a desert. Similarly, a mech able to position itself knee-deep in water will vent heat more rapidly than it otherwise could.

Certain long-range weapons like missiles can be fired indirectly, as long as an ally is providing line of sight to the intended target. Sustained fire from rapid-fire weapons can damage a unit's stability, ultimately causing it to topple. Furthermore, mechs take damage on a component-by-component basis, with each armour panel destroyed exposing vital systems to damage. The threat posed by an opponent degrades over time as you knock off arms or cripple legs, and a lucky or well-judged shot that strikes a torso-mounted ammo cache might cause a chain explosion that kills the pilot.

The aggregate result of all of these intricately implemented systems is a tactical wargame that rewards considerate and creative play. Unlike many similar games, there are few universally beneficial game states. In Firaxis' modern *XCOM* games, for example, cover is always desirable and a flanking attack is always more effective than a head on-assault. In *Battletech*, adopting a static defensive position is effective if both mech and pilot have been kitted out to take advantage of it – but rapid movement may convey just as many defensive bonuses in other circumstances. Similarly, the right way to take down an enemy mech depends on the relative weight and loadout of each of the combatants, the environment, and – in campaign mode – the specific requirements of the mission. There's no single strategy that overrules the others, and *Battletech* is richer for it.

Battletech's greatest strength is the way the granularity of its battle mode informs your progress in its freeform singleplayer campaign. Here you play as a mercenary commander, taking on contracts for the galaxy's various factions as you attempt to build your stock of capable mechs and pilots. *Battletech* has a surprising second life as a business-management game: your most feared fail state is not death but bankruptcy, and effectively running your mercenary company means weighing the performance-boosting effects of morale against the salaries you can afford to pay your pilots, the risks and rewards inherent to each mission you choose to take on, and your standing in the eyes of the powers that be. This level of the game is influenced heavily by the outcome of missions on the ground. Damage to your mechs must be repaired, and this damage maps one-to-one with what occurs in combat. Lose a mech's arm and all of its attached gear and replacements will cost you. Fail to eject a pilot in time, and you risk their death.

These considerations apply to your opponents too, to an extent: if you negotiate for salvage rights rather than pay then you'll get first pick of any weapons or parts left behind in the aftermath of a fight. Whatever's left depends entirely on what was destroyed, which gives you an incentive to try to disable – rather than outright destroy – enemy mechs with desirable gear. Of course, these are likely to also be the most powerful combatants on the field, and the resultant push-and-pull of ambition and danger brilliantly augments *Battletech*'s fundamental mechanics.

Many essential systems are walled off behind story missions, however, and this weakens *Battletech*'s offering as a freeform simulation of mercenary life. Many of the game's best individual missions are found on the critical path, too: both the fringes of the campaign map and the endgame can feel a little underdeveloped. Getting to that point takes upwards of 40 hours, however, and *Battletech* manages to sustain a satisfying level of challenge for most of that duration – an achievement in a genre where campaigns often get easier as player power increases.

With this much granularity comes strain on the UI, too. *Battletech* has much to impart at any given moment, and with time and fluency comes an appreciation for how much the interface manages to convey with relatively few elements, but there's still a lot going on, and this can be daunting for newcomers. In particular, the slow resolution of individual movement and attack actions – while useful for clarity – can sap the pace of a given mission. Engagements frequently last upwards of half an hour, so this isn't a game that is particularly suited to short sessions. It is, however, successful as an adaptation that gets to the core appeal of the original tabletop game, and uses it to the betterment of the strategic campaign system that it has adopted from elsewhere.

8

Developer Harebrained Schemes
Publisher Paradox Interactive
Format PC
Release Out now

The push-and-pull of ambition and danger brilliantly augments Battletech's fundamental mechanics



MECH IT YOUR OWN
The Mech Bay is a system common to every *Battletech*-derived game. Here, you outfit mechs up to their individual tonnage limits. Each chassis has different strengths, and weaknesses, and in *Battletech* any changes you make take time to come into effect: a full refit may take days of campaign time, which potentially limits the missions you can take on. From a meagre stock of mechs, you will eventually grow your outfit to the point where you can run multiple variants of the same class. You might outfit a mech that runs hot and thrives in cold environments, as well as a version that uses more reliable solid ammo and therefore thrives in less forgiving conditions. Effectively kitting out your company is a worthy strategic challenge in its own right.



LEFT A lot of vital information is contained in the readouts above a given mech, from armour and internal damage values, heat, stability, classification and the training style of their pilot.
MAIN Multi-targeting allows appropriately trained pilots to split their mech's various weapon systems between multiple opponents. This lets you take advantage of each weapon's various effective ranges.
BOTTOM Text-based conversations with key characters give you an opportunity to establish your mercenary company's character





ABOVE Upgrading your ship, mechs and pilots will often occupy your time outside of missions. Flight between worlds can take several weeks of in-game time, so making good use of it is important



Cultist Simulator

On paper, the life of a cultist sounds pretty exciting. From clandestine activities, secret meetings and ungodly rituals – including the odd sacrifice – to headlong plunges into dream worlds, nightly wanders down shadowy alleys and general dabbling in things beyond our earthly ken, it sure beats a humdrum nine-to-five. Yet Alexis Kennedy's fascinating yet flawed card-based Roguelike offers a pointed reminder that, like any other serious pursuit, you'll need to invest plenty of time and effort to yield the best results. And, occasionally, that the caprices of life can get in the way of one's occult appetites. To put it another way: not tonight, Cthulhu, we're turning in early to shake off this cold.

You start out as an Aspirant, scraping an existence as a hospital worker who spends their days "delivering post to hollow-eyed invalids, trundling corpse-laden gurneys to the basement" – the kind of sparingly evocative flavour text Kennedy does so well – until a recently deceased patient bequeaths you some money and directions to an occult bookstore. It's here that your descent into matters of the metaphysical variety begins in earnest. To buy books to gain the knowledge and insight you need to explore your darker desires – and simply to survive – you'll need money, and that means finding a proper job.

This all plays out on a large table, with icons and cards spread across it. New ones arrive frequently – usually as a result of your activities, but sometimes at random – while others decay and burn to nothing over time. Passion, Reason, Health and Funds are the four main resources you'll need to manage, each of which can be increased through prudent play. In the meantime you'll balance work with study, and the mundanities of reality with the mysteries and inspirations that emerge within dreams.

Guidelines are sparse; for the most part, this is a game about using and combining cards and seeing what results. For starters, placing a Health card on the work icon lets you earn a modest wage for hard labour; your health will return, but only after a period of time. Use a Passion card instead and you might be able to earn a crust as a painter: without a subject, you've not much chance of making a sale, though perhaps you can draw inspiration from your dreams? Clerical work might seem like a safer bet, and showing extra diligence – via a Reason card – may earn you a promotion and an associated pay rise. Yet this more elevated position brings you into the orbit of a strict boss who expects you to work harder and later than other staff.

Outside work hours, study proves particularly vital. (If Kennedy thinks that he can gain our favour by espousing the value of buying print publications, well, he's absolutely right.) Talking about these arcane texts in public may attract attention of the wrong kind, but notoriety is also a magnet for the curious, and potential initiates might be cajoled into destroying evidence of suspicious activities – or even to bump off investigators on your tail. Though they'll first need training in the ways of the Order Of The Bloody Cup.

Developer Weather Factory
Publisher Humble Bundle
Format PC
Release Out now

The game has a tendency to introduce a fascinating new avenue that it punishes you for pursuing



WHERE THE CARDS FALL
You'll spend plenty of time reorganising the table, though such disorder feels fitting for a game about inviting a bit of chaos into your daily routine. Still, the interface needs a little work. Text is unreadably small from distance, and so you'll find yourself zooming in and out more often than feels comfortable. As a result, you'll sometimes find events occurring outside your current view, unless you keep checking back over the whole table. One wonders if this is deliberate: a way of evoking the presence of things just beyond your normal perspective, or the idea that narrowing your focus means that key events might well pass you by. Even so, it's all too easy to miss crucial developments when things gets busy during the later stages of a playthrough.

Problems pile up thick and fast, and initially you won't have the first idea how to deal with them. If any of your main resources falls to zero, you're usually in trouble. Passion may seem less important than health or money, but showing conviction might be required to cajole your boss into giving you another chance after that day you failed to turn up for work – or even to persuade that inquisitive young woman you met recently to join your cult. Not least as you struck an early deal for immediate financial gain which requires an eventual sacrifice in return, and the time for the debt to be collected is fast approaching. Still, even if it's you that pays the ultimate price, your death resonates through the next playthrough. Next time, you might play a physician who determines not to follow the dreams that sent his former patient mad, or a detective who must resist the temptation to look into the case file of the previous unfortunate, lest he be driven to the brink of despair.

In truth, you're essentially playing a detective most of the time, since each run sees you presented with myriad pieces of a puzzle that you're forever trying to fit together. You'll feel like something of an alchemist, too, experimenting with various combinations without always being certain of the results. Yet this trial-and-error approach prompts as many disheartening realisations as thrilling epiphanies. Each fresh discovery feels exciting, and yet forging ahead is often unwise: the game has a tendency to introduce a fascinating new avenue that it punishes you for pursuing. Equally, spend too long in the drudgery of work in the hope of amassing the funds to properly dabble in the dark arts, and you'll encounter problems for failing to sate your immediate yearnings for sensation or power. Exploring nightmares without the mental preparedness to deal with them, meanwhile, might see dread overwhelm you, unless you can find contentment elsewhere.

At its best, *Cultist Simulator* is quietly riveting, conjuring a palpable atmosphere of intrigue and danger as you juggle the risk and reward of harnessing otherworldly powers. During a bad run, however, it can feel like a rather inefficient way of telling a fairly miserable story. Once too often you'll find yourself eking out a grim little existence, working long hours for miserly pay and ending up too ill to do anything but sleep off your ailments, leaving you little to no free time to indulge your true passions. In other words, the kind of reality to which many of us are already a little too comfortably acquainted.

7







ABOVE The ending you get determines the roles you're offered for your next run. As a Bright Young Thing, your life of luxury won't last long, but your inherited wealth means not having to worry about the day job for a while

MAIN Not all temporary status effects are bad, and some are more useful than they sound. That said, there are several that will mean little until your cult is established. ABOVE Commit to placing a card and you can't cancel it, yet sometimes you can place a second to influence the first – like changing the circumstances of a meeting with an adversary, perhaps – though it's not always clear how (and if) the change might affect the outcome. RIGHT It certainly pays to get your health and finances in good shape before entering the world of rites and rituals. Though once you've indoctrinated a few locals, you won't have to make quite so many personal sacrifices



The Swords Of Ditto

This cheerful, cartoonish dungeon-crawler doesn't want for ideas – even if most of them aren't really its own. From its top-down perspective to its flip-screen scrolling, its enjoyably simplistic combat and its dungeons filled with switches, hazards and gear-centric puzzles, it aims an affectionate nod to *A Link To The Past*. In setting a time limit for the parochial calamity that's about to befall the titular town, it's redolent of *Majora's Mask* (on the standard difficulty you have an extra 24 hours to put your affairs in order). It pilfers *Costume Quest*'s toys and stickers for weapons and buffs; with its melee attacks refilling your special meter, it's in hock to *Hyper Light Drifter*, too. And since fallen warriors can leave useful items to their descendants, there's even a hint of *Rogue Legacy* in there. Still, it's one thing to borrow ideas, quite another to make them all fit. Developer Onebitbeyond hasn't just picked its targets well, but via some strange osmosis, *Ditto* emerges from its influences as very much its own game.

Each randomly generated hero accepts their destiny with heartwarming enthusiasm. Fate has decreed that they must prepare for the imminent arrival of a malevolent sorceress, who at least has the good grace to give notice of her hostile takeover. Two artefacts, lying within nearby dungeons, can weaken her grip if destroyed; first, however, you'll need to find two legendary toys – a remote-controlled drone, perhaps, or a laser-shooting eye-ring – to complete these labyrinths. That is, of course, assuming you've passed the entry restrictions, which demand you get your hands dirty. Every kill accrues points to level up your sword and increase your health bar, so roll-dodging attacks will only get you so far.

You can collect more toys once you've defeated the trial dungeons, with up to four items mapped to the D-pad for convenience. All run off the same magic supply: it pays to equip stickers that have toys consuming less mana

Developer Onebitbeyond
Publisher Devolver Digital
Format PC (tested), PS4
Release Out now



WITCH TIME
The final dungeon is shorter and easier if you've used your time wisely, though it eschews the puzzles of the rest for a combat-focused approach. Exits are blocked off as you enter rooms, with enemies spawning while you attempt to stand on a pressure plate that steadily fills with magical energy, eventually releasing the lock. Other rooms demand you fill skull cups with fragile artefacts left behind by slain opponents, before a testing final encounter for which it pays to have a few health-giving doughnuts and burgers in reserve.

Even at her weakest, the witch is no picnic. Though *Ditto* isn't as ruthless as some of its peers, death still stings, especially since the delightfully hand-scribbled map that steadily fills out as you explore is wiped clean and rearranged for each new dungeoneer. You can tip the scales in your favour, though only so far: gather enough celestial fragments and you can cash them in to bequeath your most valuable kit. But would they perhaps be better spent on extending the deadline? Either way, enemies scale to the sword's level, so while an extra day or two gives you the chance to bolster your arsenal, any complacency is swiftly punished.

Challenge is a welcome constant in an-ever changing world, which, with its fast-travel kazoos, vinyl frisbees and *Viewtiful Joe*-style jumpsuits, has plenty of charming eccentricities. It's not going to change your life, but for a dozen or so hours, this genial adventure might just make it a few shades brighter.

7



Far: Lone Sails

About an hour into *Far: Lone Sails*, we're starting to understand how Tom Hanks ended up so attached to that volleyball. When you're faced with a whole lot of nothing, you begin to build odd little relationships with lifeless things. And what a nothingness this post-apocalyptic adventure boasts, a desolate, dried-up seabed that stretches on endlessly, painted in moody charcoal and rich, bruise-coloured gouache. The relationship it manages to foster, however, is even more striking.

Your partner throughout the journey is a hulking, clanking machine. This land yacht is your primary means of transportation, and so the bulk of your time is spent caring for it, a cross-section view allowing its various parts to be quickly surveyed and assessed. Clearly, Okomotive understands the appeal of big red buttons – they are everywhere. One turns barrels and crates into fuel; another operates the central lift; another acts as an accelerator. The cramped interior means we sometimes accidentally hit switches, but rushing about the contraption to keep its various sections in order is generally a kinaesthetic joy, while the machine's cheerful puffs of steam and good-natured groans begin to convince you it's anything but inanimate.

If you leave the land yacht for a short while, it induces a sense of anxiety, your diminutive character pattering along on tiny legs as the camera continually zooms out to show how tiny you are in the big, bleached scenes

Developer Okomotive
Publisher Mixtvision
Format PC
Release Out now



TRINKET TAILOR
Red hooks on the ceilings of the ship are useful for storing extra fuel – but wonderfully, *Far: Lone Sails* clearly intends that some of them are used to hang the various decorative items that we find. Lanterns to cast a little extra light, a toy sailboat, a flowerpot and a disused radio (which occasionally crackles into musical life or eerie gibberish) end up adorning our home, which goes a long way towards building an attachment to it.

The occasional puzzle will reward you by fastening new parts to your craft: a device that can automatically suck up resources at the expense of a little fuel, a welding torch and a fire hose, and a set of sails to deploy when the wind favours you. None of the conundrums are particularly taxing, although it at least means momentum rolls along nicely. These perfunctory puzzles are outshone by the interferences of Mother Nature, who sends lightning, tornadoes and erupting volcanoes after you – and, most memorably, a vicious hailstorm, the sound of its destructive stones plucked on taut strings as you rush about, putting out fires and desperately trying to push your ship towards shelter.

It's disappointing that this is one of the only instances in which looking after your giant metal friend feels like a challenge. Fuel sources are suspiciously plentiful in this forsaken place, meaning risk-reward situations are few, and even the continued addition of new doodads does little to ramp up the intensity of the ship-management aspects on a minute-to-minute basis. Our bond with our mechanical companion might have been even stronger when faced with a bit more hardship – by the time things really kick off, the story is nearly over. Nevertheless, *Far: Lone Sails*' ambiguous, strangely tranquil post-apocalypse is beautifully atmospheric, with a touching message: as long as you have hope, you are never truly alone.


7





Nier: Automata

How Yoko Taro's study of human frailty overpowers its own flaws

By Chris Schilling

Developer PlatinumGames **Publisher** Square Enix **Format** PC, PS4 **Release** 2017

Let's face it, *Nier: Automata* was never likely to offer the friendliest of welcomes. Marrying director Yoko Taro's obstinacy with PlatinumGames' fondness for dropping players in at the deep end, the sequel to Cavia's 2010 cult favourite begins with half an hour of action during which you're unable to save. As such, if you die at any point, you'll be whisked back to the very beginning and forced to go through it all over again. We've certainly faced worse setbacks and steeper challenges in our time – and a familiarity with the work of both the game's creative figurehead and the team choreographing its action meant this didn't come as a complete surprise. But plenty of those who'd been cajoled into trying *Automata* wondered whether it was worth the effort. Even the game's most vocal advocates have taken to suggesting workarounds, and not only for that opening. Game designer Teddy Diefenbach (*Hyper Light Drifter*) went as far as to start a Twitter thread suggesting the best way to play the game, following negative feedback from friends and acquaintances. "*Nier* is an incredible, beautiful, fun, important game to our medium." he wrote. "If it doesn't fuck you over."

That, in fairness, is a pretty big caveat. Yet once you're over that initial hump, *Nier: Automata* frequently goes out of its way to accommodate players – almost as if Taro was hoping to weed out the less committed in order to deliver his message to an audience prepared to put in the early graft. Its combat system should foster deep engagement among anyone versed in PlatinumGames' earlier work, but with an easy difficulty option and equippable chips to automate attacks and dodges, it allows players to breeze through encounters should they prefer to focus on the story. In some respects, it's a pity to play *Automata* that way – though Taro has always said that combat is never the focus of his games, and though it never quite matches *Bayonetta*'s peerless kineticism, it has a balletic poise and proves deliciously flexible, particularly on the higher difficulty settings.

And whichever route you choose, *Automata*'s plug-in chips – surely one of the most ingenious RPG upgrade systems in recent years – gives you an unusual degree of control and choice over everything from how you tackle battles to how many HUD elements you'll see. You have a limited space in which to slot them, introducing a light puzzle element to the process, as you pick the ones that are most vital to you, whether you're supplementing your preferred playstyle or compensating for weaknesses. If you're taking a lot of damage, you can equip defensive buffs and a chip that automatically uses a healing item when your health is low. If you're finding exploration too slow, you can increase your movement speed and dash distance to get where you're going much quicker. It gives the player plenty of latitude to experiment in a genre that's often content to push players down relatively restrictive skill paths.

In allowing for a degree of creativity, it also leaves the door ajar for some good old-fashioned human error. Attempt to remove the operating system – you are, in all fairness, given a stark warning before you confirm your choice – and it's game over. Likewise, if you eat a mackerel, your android protagonist's bodily fluids will congeal, resulting in her death. These are just two of a full alphabet's worth of different endings, by turn rewarding and punishing human curiosity (and sometimes both at once). Undone by our own poor sense of direction, we inadvertently stumble across another conclusion, which accuses us of straying from our mission, at once highlighting the player's own free will and the protagonists' lack of it.

That point of difference is at the very heart of *Nier: Automata*'s story, which takes place on a ruined future Earth where the last remnants of humankind have fled to the Moon, sending a group of combat androids to battle an army of machine invaders. In truth, plot is less important than theme: Taro is keen to use these events to explore the messy complexities of human nature, with a particular focus on human frailty, and the frightening thought that our own failings might continue to define us long after our departure.

To do this, he relies upon a similar narrative structure to his previous games, where multiple playthroughs are required ▶

to get the full picture. Sometimes that means the same events are presented from a different perspective; at others, fresh knowledge helps us recontextualise our understanding of them. During the first playthrough, we're cast as 2B: a cold, calculating android, who's joined by a more personable partner, 9S. Theirs is almost a parent-child relationship: she frequently criticises his behaviour, most notably admonishing him for his curiosity about the machines' activities, which over time seem increasingly, disturbingly human-like.

Despite a climax that sees 2B forced to kill 9S after he's infected by a machine virus, the initial conclusion is curiously flat. But Taro is playing the long game. As a post-credits prompt takes great pains to point out, this isn't actually the end of the story, with second and third playthroughs producing new twists and revelations. At the third route's climactic encounter, you're asked to pick a side; return afterwards to explore the other option, and you can unlock a fourth ending, and then a fifth, which proves altogether final.

If the first run through *Nier: Automata* is a little underwhelming, that's partly because we're asked to play a character who seems unfeeling throughout. Sporadically, glimpses of human behaviour slip through, and they're not always pleasant. Humanity here is mostly defined by its weaknesses, which even extend to prejudice. 2B's curt dismissals of 9S's questions demonstrate a clear hatred of the machines; later, we see her casual othering of her enemy reflected in his own hostile attitude toward them, a stark reminder of how intolerance can be passed down to younger generations.

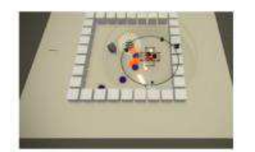
SPORADICALLY, GLIMPSES OF HUMAN BEHAVIOUR SLIP THROUGH, AND THEY'RE NOT ALWAYS PLEASANT

Love is also seen as a destructive force: 9S's apparent affection for 2B becomes a consuming fury when he believes she's been killed. Meanwhile, another machine is driven mad by unrequited love: rejected by another robot, she misinterprets the aesthetic standards that her accumulated knowledge of humans had convinced her would win the affection of her beloved, cannibalising her own kind as a result. It's a startling discovery that lends poignancy to one of the game's best boss fights.

She's far from the only machine to suffer. *Automata*'s saddest tale belongs to a pacifist called Pascal, whose naivety is horribly exposed in a late-game episode. In his desire to protect a group of child machines, he teaches them the value of fear as a survival mechanism, to ensure they don't blunder into danger; tragically, when trouble flares, they become so frightened that they all commit suicide. In a grim twist, he'll ask you to kill him or erase his memory banks: the latter might seem like an act of mercy, to prevent him living with the guilt of his actions, but do so and he'll become a vendor selling machine parts – including the cores of the recently deceased.

If that all sounds like heavy going, Taro has one more surprise that strikes an oddly

***Automata* can test your patience to make a point. The end of 2B's story is an example, as she staggers slowly to her objective, her display failing all the while. It's irritating, but it's where we finally see 2B as more than pristine perfection**



Hacking an enemy while undetected lets you control them rather than destroy them



CRY, ROBOT

Whether or not you prefer his work on the original *Nier*, Keiichi Okabe's soundtrack for *Nier: Automata* increasingly feels like a modern classic. Naturally, it blends the human with the mechanical: Birth Of A Wish II and III combine robotic chants with clanking percussion, while Fortress Of Lies provides the android headquarters with the steady pulse of a human heart. There's a mournful undertone to even its most strident battle themes, but the score reaches its emotional peak with the soaring Weight Of The World. In the Japanese-language version, singer Marina Kawano's voice cracks with emotion as the music builds, before she audibly breaks into tears. It's a moment that fits the game's central theme like a glove, highlighting the beauty of human fallibility.



Androids' personalities and memories can be saved. The vending machines that function as fast-travel spots – where the characters' consciousnesses are transferred to a new shell – are a reminder of their physical expendability

hopeful final note. With Endings A-D obtained, another playthrough of the last chapter invites you to make a sacrifice for the greater good. It'll likely have more impact if you haven't played the original *Nier*, which offered an even crueller (and possibly better) riff on a similar idea. There, to save an NPC, you were asked to let your save file be erased: to further underline the punishment, you were left unable to use the same character name again, as a permanent reminder that they and their actions – and, by extension, you and yours – had been forgotten. In *Automata*, a seemingly impossible final challenge requires you to rely on the help of others who've previously uploaded their own data; you, in turn, are asked to give up yours to assist future players struggling through the same objective. This feels like a more performative, self-congratulatory kind of selflessness – even when, as every save file and menu option is methodically removed before our eyes, we experience a similar feeling of loss.

And yet this process also imparts a tangible value on the player's actions: your data will, in all likelihood, help others reach the true ending. That is, Taro suggests, the kind of purpose we need in our lives – just as the machines try to replicate human behaviour as a way to find meaning in their existence, and the androids perpetuate a ruse to keep their own kind motivated. And despite an apparent distaste for organised religion, it's clear *Automata* understands the importance of faith. The final exchange, between the androids' support pods, sees the three protagonists about to be reconstructed: though there's every chance that history will simply repeat itself, the pods firmly believe there's a chance that things might just be different this time around.

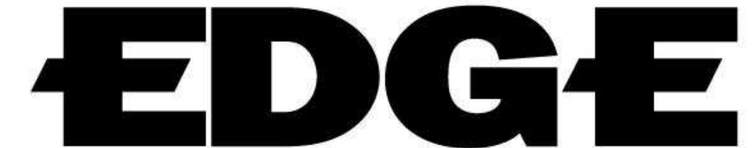
In giving its players a cause worth fighting for, it's no wonder *Nier: Automata* has attracted a following so willing to argue its corner. As such, all those who've demanded we reconsider our review score – the cause of the most quizzically raised eyebrows and angry correspondence since *Mario Kart: Double Dash* – can consider themselves forgiven. Even if it does "fuck you over", this thoughtful, affecting and strikingly provocative game is undoubtedly worth sticking with to its bitter ends. ■

Players can pray over the corpses of fallen androids. If they're online, their health will be replenished and they'll receive an item





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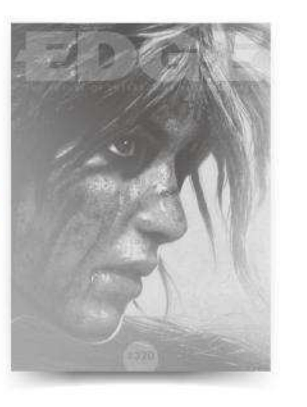
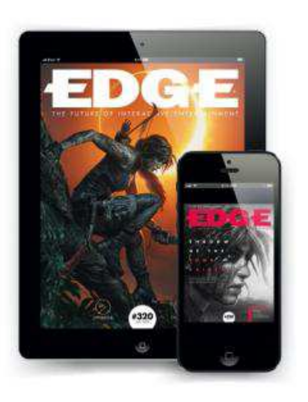




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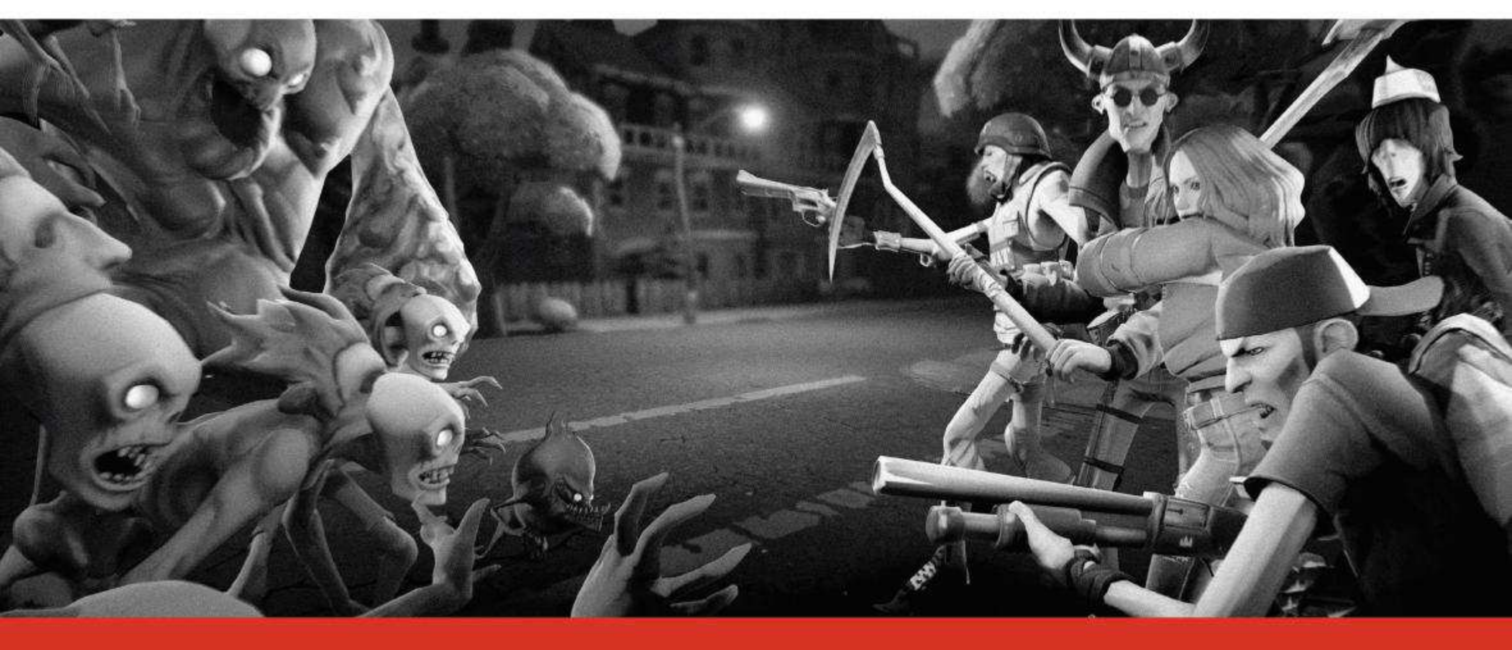
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A progress report on the games we just can't quit



Fortnite

Developer/publisher Epic Games **Format** Android, iOS, PC, PS4, Xbox One **Release** 2017

Hindsight's great, isn't it. In **E**308, *Fortnite* was a co-operative PVE game and nothing else, and we were unconvinced. "The blueprint is lacking something," we wrote. "Some secret ingredient to lift the game above its mingled inspirations." Elsewhere we cast doubt on "how *Fortnite* will captivate younger souls who've grown up in an industry saturated with realtime construction toolsets". Whoops. Fast-forward a year, and *Fortnite* is the hottest game on the planet.

In fairness, Epic's plans to pivot its muddled Early Access game to the hottest *genre* on the planet wasn't publicly known at the time. Even after its surprise release, *Fortnite*'s battle-royale mode was ignored by just about everyone – save for the legal team at PUBG Corp. It seemed cheeky, even desperate, a Hail Mary for a struggling game by a past-its-best developer.

Again: whoops. *Fortnite* is a phenomenon in a way that even *Minecraft* didn't manage, its appeal spreading far beyond the bedroom and school playground. Accessibility helps, certainly – it is free to play and was available at launch on console and PC, before spreading to mobile. But a game doesn't reach these dizzy heights by simply being there. In a battle-royale context, *Fortnite*'s blend of building and shooting feels like something close to genius, changing the dynamics of the multiplayer shooter entirely. Lines of sight can be created or closed off, flanking routes designed on the fly. Yes, it borrows from *PUBG* the innate thrill of picking your spot on a map and seeking out randomly placed loot, alone or in a squad. But that lacking *Fortnite* blueprint is, in this setting, its secret sauce.

And as the weeks fly past and the updates roll in, we come to understand why the *PUBG* legal bods were so worried. No one knows a game engine quite like the people that made it, and to compare the speed at which Epic and PUBG Corp iterate on their games is far from flattering to Brendan Greene's South Korean team. It's not just about speed, however, but attitude. The developer's decision to iterate on a single map has likely set a new genre standard. Epic is big enough to admit when it's made a mistake, and has no qualms about tweaking, or even removing, new weapons within weeks of them being added.

That speed of development may reflect an understanding that this position of world-beating dominance cannot possibly be sustained. *PUBG* looked all-conquering for a while, after all, until *Fortnite* came along. Yet whatever happens, its legacy is assured; of a struggling game that was rebuilt at lightning speed, and became the envy of the industry. ■

#321
June 21



